SHARP SERVICE MANUAL

S3410SYSCD555

SYSTEM-CD555ZT(GY)

COMPACT disc DIGITAL AUDIO

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

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SHARP CORPORATION

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

● General

Power source:	AC 220 - 230 V, 50 Hz DC 12 V ["D" size (UM/SUM-1, R20 or HP-2) battery x 8]
Power consumption:	55 W
Output power:	PMPO; 46 W (23 W + 23 W) (AC operation) MPO; 14 W (7 W + 7 W) (AC operation) RMS; 10 W (5 W + 5 W) (DC operation, 10 % T.H.D.)
Output terminal:	Headphones; 16 - 50 ohms (recommended; 32 ohms) 3.5 mm (1/8") socket CD out; 0.5 V/10 kohms RCA pin type
Dimensions:	Width; 294 mm (11-9/16") Height; 269 mm (10-9/16") Depth; 229 mm (9")
Weight:	3.9 kg (8.6 lbs.) without batteries

● Tuner section

Frequency range:	FM; 64 - 108 MHz LW; 148.5 - 283.5 MHz MW; 526.5 - 1,606.5 kHz SW; 5.95 - 18 MHz

● Tape deck section

Frequency response:	50 - 14,000 Hz (Normal tape)
Signal/noise ratio:	55 dB (TAPE 1, playback) 50 dB (TAPE 2, recording/playback)
Wow and flutter:	0.25% (WRMS)
Motor:	DC 12 V electric governor (1motor)
Bias system:	AC bias
Erase system:	AC erase

● Compact disc player section

Disc:	Compact disc
Signal readout:	Non-contact, 3-beam semi-conductor laser pickup
Audio channels:	2
Decoder:	16-bit linear quantization
Filter:	4-times oversampling 16-bit digital filter
Frequency response:	20 - 20,000 Hz
Dynamic range:	90 dB
Wow and flutter:	Unmeasurable (less than 0.001% W. peak)

● Speaker section

Type:	2-way bass-reflex type
Speakers:	12 cm (4-3/4") free-edge woofer x 2
Maximum input power:	13 W
Dimensions:	Width; 170 mm (6-5/8") Height; 261 mm (10-1/4") Depth; 190 mm (7-7/16")
Weight:	1.5 kg (3.3 lbs.) /each

Specifications for this model are subject to change without prior notice.

STRINGING OF DIAL CORD

1. Turn the drum fully in the direction Ⓐ shown in Fig. 2-2 and stretch its cord over the parts in the numerical order.
2. Then turn the tuning control shaft fully in the direction Ⓑ shown in Fig. 2-2 and fix its pointer as shown in Fig. 2-1.

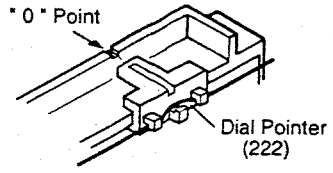


Figure 2-1

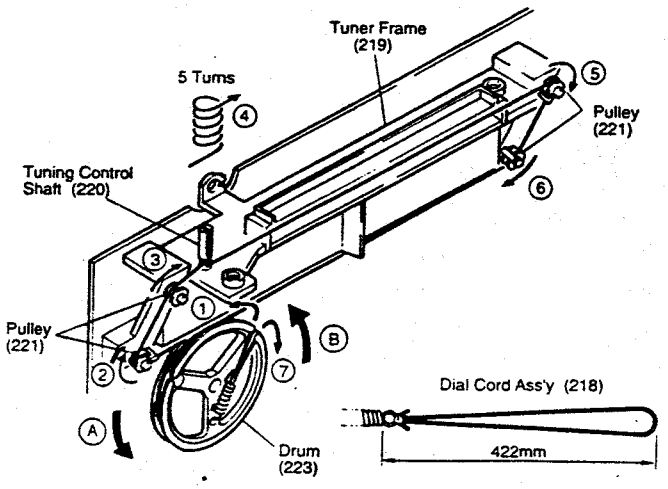


Figure 2-2

NAMES OF PARTS

● CD display section

1. Play Indicator: ►
2. Track Number Indicator
3. Random Indicator
4. Minutes and Seconds Indicator
5. Memory Indicator: M
6. Pause Indicator: ❚❚
7. Programme Indicator: P
8. Repeat Indicator: ⊂

● CD section

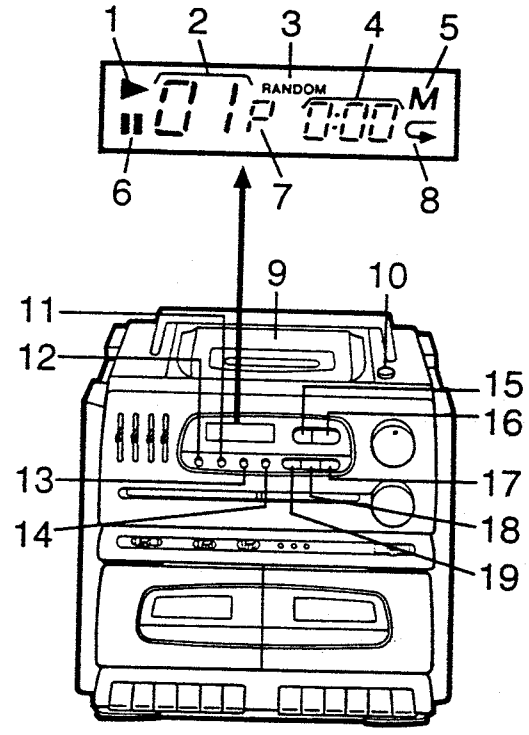
9. CD Compartment
10. CD Eject Button: ▲
11. Clear Button
12. Random Button
13. Call Button
14. Memory Button
15. Stop Button: ■
16. Play/Repeat Button: ► ⊂
17. Track Up/Cue Button: ▶▶|/▶▶
18. Track Down/Review Button: |◀◀/◀◀
19. Pause Button: ❚❚

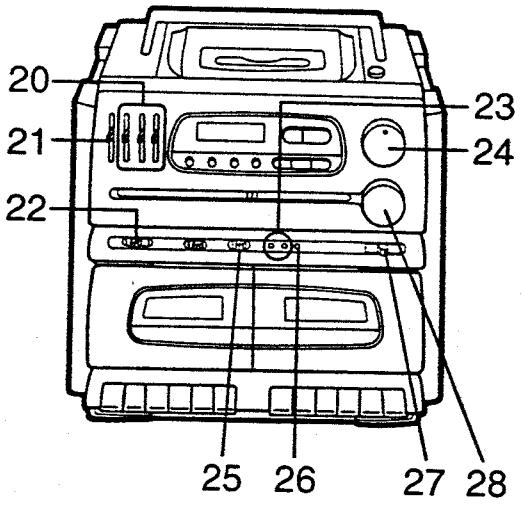
● Amplifier section

20. Graphic Equalizer Controls
21. Extra Bass Control: X-BASS
22. Power/Function Switch
23. Power/TAPE 1 Direction Indicators
24. Volume Control

● Tuner section

25. FM Mode/Tape Selector Switch
26. FM Stereo Indicator
27. Band Selector Switch
28. Tuning Control





■ Tape section

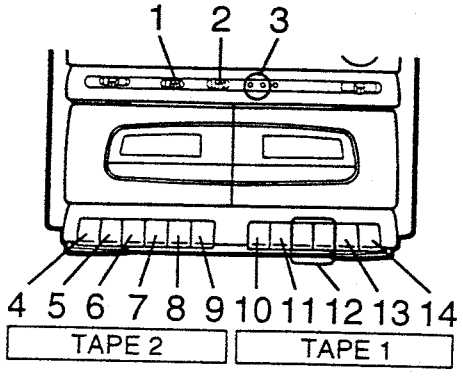
1. Dubbing Speed Switch
2. FM Mode/Tape Selector Switch
3. Power/TAPE 1 Direction Indicators

TAPE 2

4. Record Button: ●
5. Play Button: ▶
6. Rewind Button: ◀◀
7. Fast Forward Button: ▶▶
8. Stop/Eject Button: ■/⏏
9. Pause Button: ❚❚

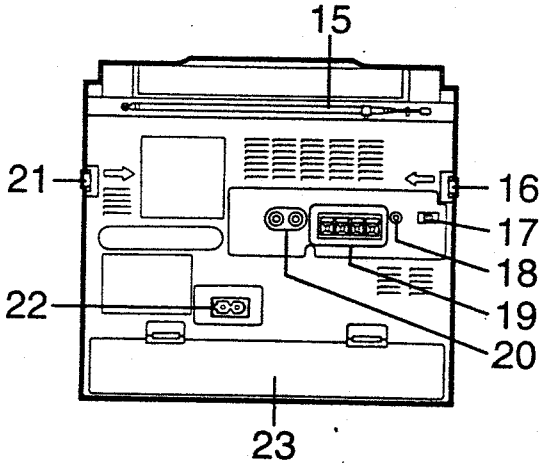
TAPE 1

10. Reverse Mode Switch: ▮⊂⊃/▁⊃
11. Play Button: ◀▶
12. Fast Wind Buttons: ◀◀/▶▶
13. Stop/Eject Button: ■/⏏
14. Direction Switch: ◀▮▶



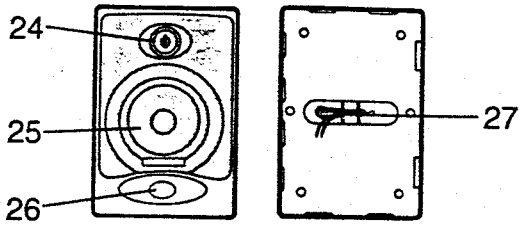
■ Rear panel

15. FM/SW Telescopic Rod Aerial
16. Left Speaker Release Lever
17. Beat Cancel Switch
18. Headphones Socket
19. Speaker Terminals
20. CD Output Sockets
21. Right Speaker Release Lever
22. AC Power Input Socket
23. Battery Compartment



■ Speaker section

24. Tweeter
25. Woofer
26. Bass Reflex Port
27. Speaker Wires



DISASSEMBLY

Caution on Disassembly
Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep its safety and excellent performance:

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit and remove the batteries from the unit.
3. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

MAIN UNIT

STEP	REMOVAL	PROCEDURE	FIGURE
1	Rear Cabinet	1. Screw .....(A1)x7 2. Socket .....(A2)x1	5-1
2	Top Cabinet	1. Screw .....(B1)x4 2. Tip .....(B2)x1 3. Socket / Flat Wire ...(B3)x2	5-2
3	Main PWB (with Tuner Frame)	1. Screw .....(C1)x2 2. Knob .....(C2)x1 3. Spring .....(C3)x1 4. Socket .....(C4)x4 5. Flat Wire .....(C5)x1	5-1 6-1 5-1 5-1,3 5-1
4	Tape Mechanism	1. Open the cassette holder .. 2. Screw .....(D1)x1 3. Washer .....(D2)x1 4. Lever .....(D3)x1 5. Screw .....(D4)x7	— 5-3
5	Volume PWB	1. Knob .....(E1)x1 2. Nut .....(E2)x1 3. Washer .....(E3)x1	6-1
6	Graphic EQ. PWB	1. Screw .....(F1)x2	6-2
7	LCD PWB	1. Flat Wire .....(G1)x1 2. Screw .....(G2)x4	6-3
8	Switch PWB	1. Screw .....(H1)x1 2. Hook .....(H2)x1	6-3
9	CD Servo PWB	1. Flexible PWB .....(J1)x1 2. Screw .....(J2)x4 3. Socket .....(J3)x1	6-3
10	CD Mechanism	1. Screw .....(K1)x3	6-3

SPEAKER

STEP	REMOVAL	PROCEDURE	FIGURE
11	Front Cabinet	1. Screw .....(L1)x6	6-4

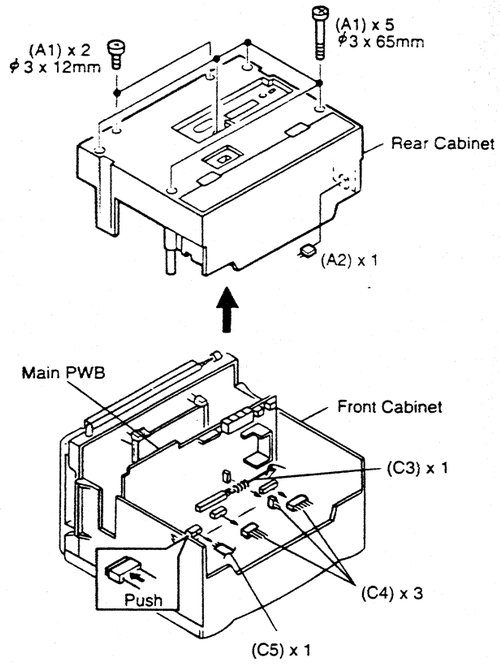


Figure 5-1

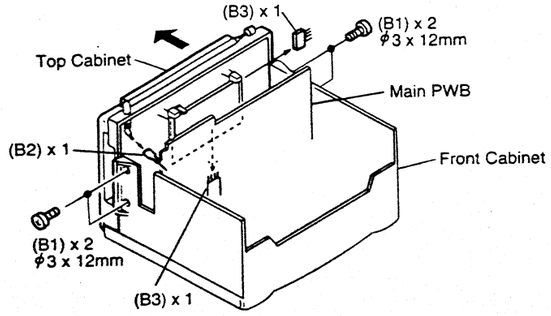


Figure 5-2

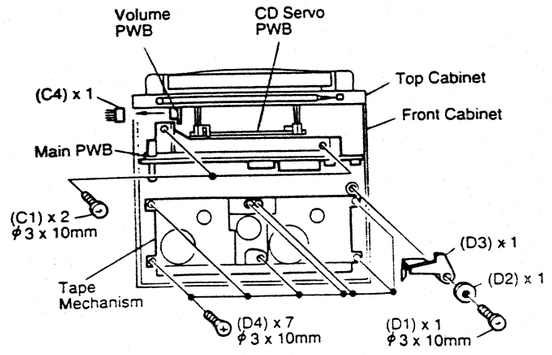


Figure 5-3

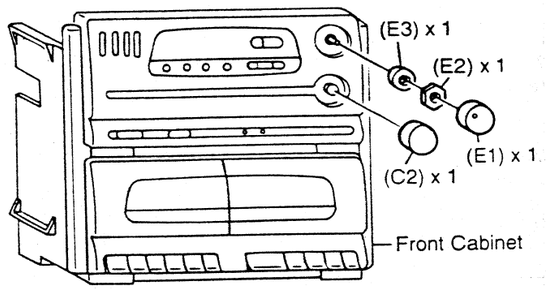


Figure 6-1

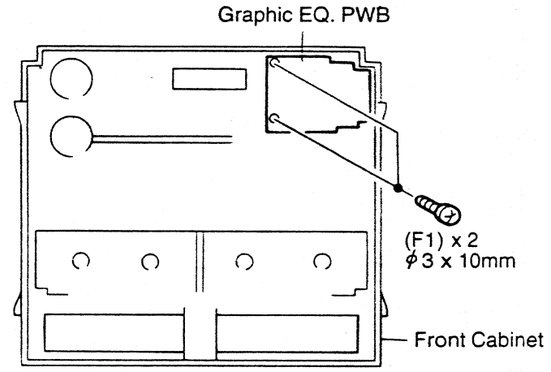


Figure 6-2

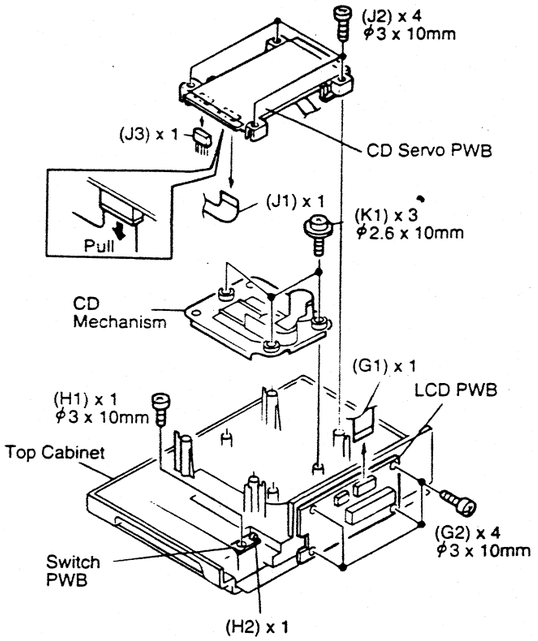


Figure 6-3

Figure 6-4

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1, 2, 3 and 4 of the disassembly method to remove the tape mechanism.

How to remove the record / playback and erase heads (TAPE 2) (See Fig. 7-1.)

1. Remove the 2 screws (A1) to remove the button frame.
2. Remove the 2 screws (A2) to remove the record/playback head.
3. Remove the 2 screws (A3) to remove the erase head.

Note:
After replacing the heads and performing the azimuth adjustment, be sure to apply screwlock.

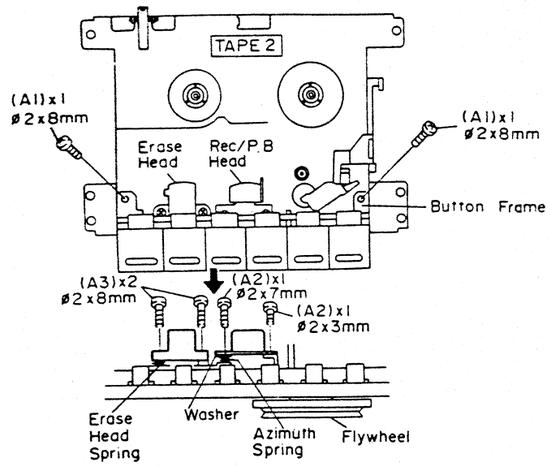


Figure 7-1

How to remove the playback head(TAPE1) (See Fig. 7-2.)

1. Remove the 2 screws (B1) to remove the button frame.
2. Remove the 2 screws (B2) to remove the playback head.

Note:
1. The playback head of this mechanism is supplied as finished product with flexible PWB. Before removing the flexible PWB, remove the solder on the switch.
2. After replacing the head and performing the azimuth adjustment, be sure to apply screwlock.

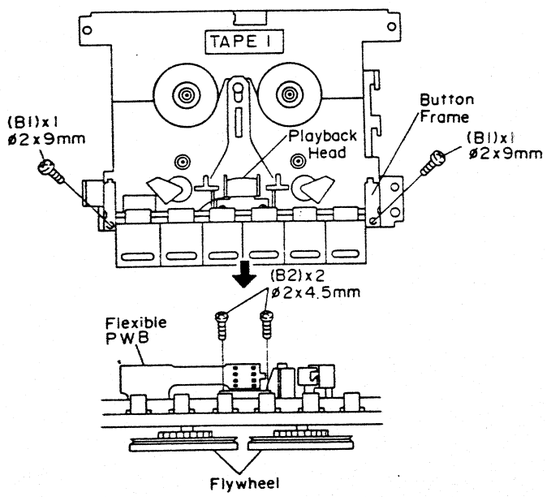


Figure 7-2

How to remove the pinch roller(TAPE 2) (See Fig. 7-3.)

1. Carefully bend the pinch roller hook in the direction of A, and remove the pinch roller (C1) upwards.

How to remove the pinch roller(TAPE1) (See Fig. 7-3.)

1. Remove the stop washer(D1) with a small precision screwdriver and extract the pinch roller.
2. To remove the left pinch roller, use the same procedure.

Note:
If the stop washer is deformed or damaged, replace it with a new one.

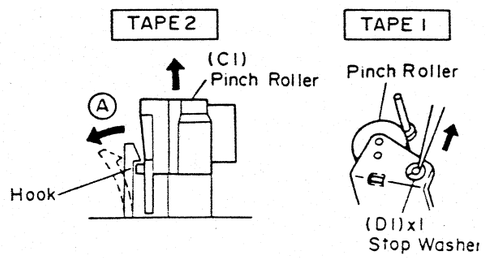


Figure 7-3

How to remove the belt (See Fig. 8-1.)

1. Remove the tape 2 main belt (E1) from the motor side.
2. Remove the FF/REW belt(E2).
3. Remove the tape 1 main belt (F1) from the motor side.

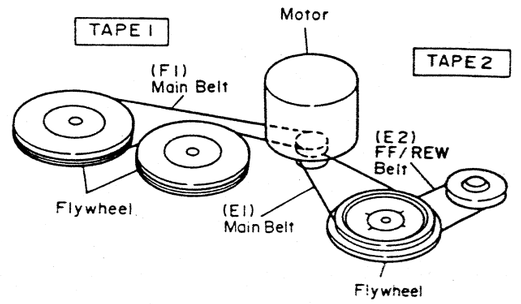


Figure 8-1

How to remove the motor (See Fig. 8-2.)

1. Remove the 2 screw (J1) to remove the tape 2 mechanism.
2. Remove the 3 screws (J2) to remove the motor.

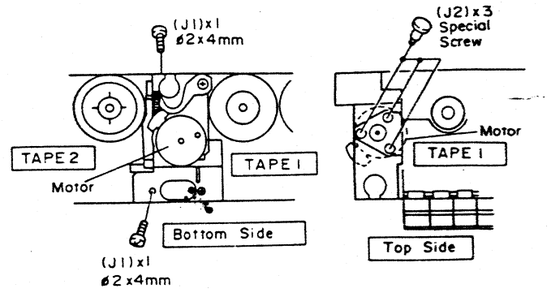


Figure 8-2

CD MECHANISM SECTION

Perform steps 1, 2, 8, 9 and 10 of the disassembly method to remove the CD mechanism.

Removing the optical pickup (See Fig. 8-3.)

1. Remove 4 pawls (A1) and remove cover (A2).
2. Remove 4 screws (A3) and remove 2 shafts (A4).

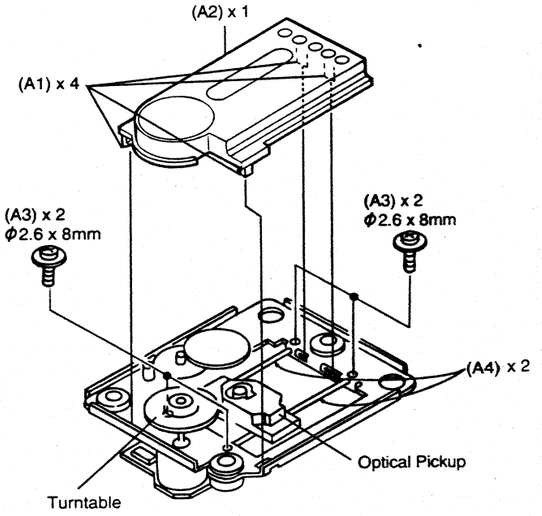


Figure 8-3

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
Play: TW-2412	Over 50 g
Reverse play: TW-2422	Over 60 g

• Torque Check

Torque Meter	Specified Value	
	Tape1	Tape2
Play: TW-2111	30 to 60 g.cm	30 to 60 g.cm
Fast forward: TW-2231	55 to 120 g.cm	55 to 120 g.cm
Rewind: TW-2231	55 to 120 g.cm	55 to 120 g.cm

• Head Azimuth

Test Tape	InstrumentConnection
MTT-114	Headphones Jack (Load resistance: 32 ohms)

• Tape Speed

Test Tape	Adjusting Point	Specified Value	Instrument Connection
MTT-111	VR401	3,000 ± 90Hz	Headphones Jack (Load resistance: 32 ohms)

TAPE SECTION

Position of each switch or control	
Volume	Max
Beat cancel switch	A
Graphic equalizer/X-Bass	Center
Dubbing speed	Normal
Function	Tape

• Bias Oscillation Check

	Specified Value
Beat cancel	A: 80 ± 4 kHz B: +4 ± 1 kHz for A C: +6 ± 1 kHz for A

• Erase Current Check

	Specified Value
Resistor for measurement: 1 ohm	80 ± 25 mV

• Playback Amplifier Sensitivity Check

Test Tape	Specified Value	Instrument Connection
MTT-118	1.0 V ± 3 dB	Speaker Terminal (Load resistance: 3 ohms)

TUNER SECTION

fL: Low-range frequency
fH: High-range frequency

• FM IF/RF

Test Stage	Specified Value/ Adjusting Point	Instrument Connection
IF	T1	Input: Antenna Output: Pin 9 of IC2
Detection	T2	
Band Coverage	fL: L2 fH: TC2	
Tracking	64.0 MHz: L1 94.0 MHz: TC1	

• VCO Frequency

Adjusting Point	Specified Value	Instrument Connection
VR1	38 kHz ± 100 Hz	Pin 6 of IC3

Note:
Add a resistor(10 kohm) between pin 7 of IC3 and ground,and adjust in stereo state.

• AM IF/RF

Test Stage	Specified Value/ Adjusting Point	Instrument Connection
IF	T3	Input: Antenna
LW Band Coverage	fL: L6 fH: TC6	Output: Pin 5 of IC2
LW Tracking	170 kHz: L3(LW) 270 kHz: TC7	Input: Antenna
MW Band Coverage	fL: L5 fH: TC4	Output: Pin 9 of IC2
MW Tracking	600 kHz: L3(MW) 1,400 kHz: TC3	
SW Band Coverage	fL: L7 fH: TC8	
SW Tracking	6.5 MHz: L4 16 MHz: TC5	

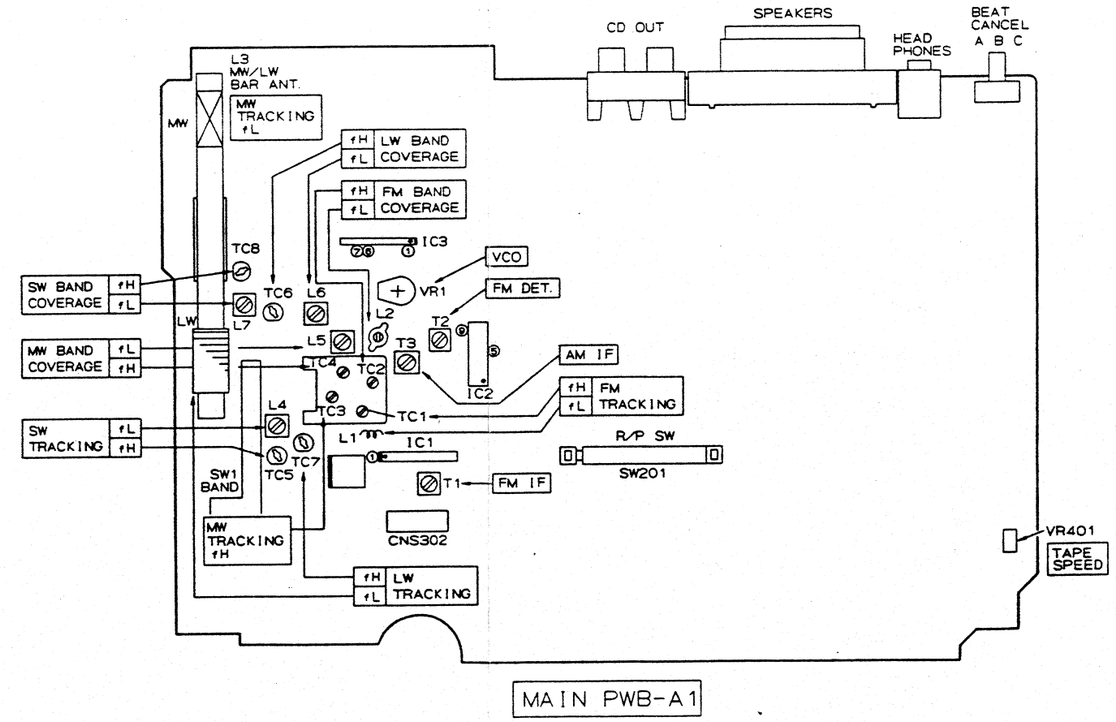


Figure 10 ADJUSTMENT POINTS

CD SECTION

"Track skipping and/or no TDC(Table Of Contents) may be caused by a build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

1. Turn the power off.
2. Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.

Note: Do not touch the lens with the bare hand.

1. Preparation for Adjustment

Setting the Test Mode

Test Mode	Setting Method	Remarks	Display
TEST MODE 0	Pressing simultaneously the "CLEAR" and "CALL" buttons, set the function switch to "CD".	All the segments light for 1.5 seconds and then the Test Mode 0 indication appears.	00 TEST
TEST MODE 1	In TEST MODE 0 press once the PLAY button. (1st)	Laser lights.	01 TEST
TEST MODE 2	In TEST MODE 1 press once the PLAY button. (2nd)	Focus start (Servo ON)	02 TEST
TEST MODE 3	In TEST MODE 2 press once the PLAY button. (3rd)	Disc rotates. (Spin servo ON) (Use the disc.)	03 TEST
TEST MODE 4	In TEST MODE 3 press once the PLAY button. (4th)	Tracking servo ON (Use the disc.)	04 TEST
TEST MODE 5	In TEST MODE 4 press once the PLAY button. (5th)	Track No. and time are indicated. (Use the disc.)	▶ 11 1:38
After TEST MODE 5 the PLAY button is inoperative. Even when it is pressed (6th time), key entry is not accepted.			

*Unless the CD lid switch SW961 is turned on, the test mode is not set.

Button Operation in Test Mode

1. When the STOP button is pressed, all operations stop. At this time the optical pickup does not slide, and TEST MODE 0 is displayed.
2. While the UP/CUE(DOWN/REVIEW) button is pressed, the optical head moves from inside to outside or from the outside to the inside.
   - Operation is possible both during playing and stopping.
   - While this operation is executed, the TEST MODE indication does not change.

After the optical pickup is slided from the outside to the inside and the optical pickup switch is turned on, the slide stops. (At the same time TEST MODE 0 is set.)

Notes:

1. Any buttons other than those specified above are invalid.
2. Before operation be sure to connect all the connectors.

Servo Unit

All the semivariable resistors must be set in the mechanical center position.

Test Stage	Adjusting Parts	Value/Adjusting Method	Instrument Connection
Set TEST MODE 0, and move the pickup to the center			
Set Test MODE 1 (make sure that the laser lamp lights)			
After loading a disc, set to TEST MODE 2. (Check to see that focus servo is ON.: The disc does not rotate, and a whining sound is heard.)			
Set TEST MODE 3 (Spin servo is turned on,, and the disc rotates)			
Tracking error balance adj.	NVR1	*1 (See Fig. 12-1)	Pin 6 (1/2Vcc) and pin 4 (TG1) of TP751
Set TEST MODE 4 (Tracking servo is turned on.)			
Check the HF signal waveform	—	Amplitude of 1.5-2.0 Vp-p (See Fig. 12-2.)	Pin 3 (HF) and pin 7 (GND) of TP751
Focus gain adj.	VR751	Adjust to obtain the same waveform on CH1 and CH2. *2	Pin 1 (FG1) and pin 5 (FG2) of TP751 and ground (The relay circuit is used.)
Tracking gain adj.	VR750	Adjust to obtain the same waveform on CH1 and CH2. *3	Pin 4 (TG1) and pin 2 (TG2) of TP751 and ground (The relay circuit is used.)
Check again the HF signal waveform.			
Set TEST MODE 5, and make sure that track No. and time are displayed.			
Stick black tape on the disc, and play that section (Fig. 13-1). (Any mode other than the test mode is acceptable.)			
Focus offset adj.	VR700	*4 (Fig. 13-2)	Pin 6 (1/2Vcc) and pin 1 (FG1) of TP751 *5
Tracking offset adj.	VR710	*6	Pin 6 (1/2Vcc) and pin 4 (TG1) of TP751 *7

* 1. Adjust to obtain vertically symmetrical waveform (Fig. 12-1) with respect to reference DC level. The reference level is 1/2Vcc. (Amplitude of 0.5 to 1.5 Vpp)
* 2. Input oscillation frequency: 1.3 kHz, 100 mV rms
* 3. Input oscillation frequency: 1.5 kHz, 300 mV rms
* 4. Watch the monitor. Adjust so that the error waveform is uniform and minimum (Fig. 13-2) and the audio output is played properly without noise (track jump noise) and free from skips and pauses.
* 5. The appropriate measuring range of the oscilloscope is 50mV and 0.5mS. Connect the trigger to pin 14 (HFOK) of CNS700. Trigger the coupling at DC and (—) slope. Observe the waveform in the normal trigger mode.
* 6. Watch the monitor. Adjust so that the error waveform is uniform and minimum (Fig. 13-2) and the audio output is played properly without noise (track jump noise).
* 7. The appropriate measuring range of the oscilloscope is 0.1V and 0.5mS. The trigger is the same as *5. (Reference) When the noise element of the error waveform is large and unclear, observe the waveform through the low-pass filter (Fig. 13-3).

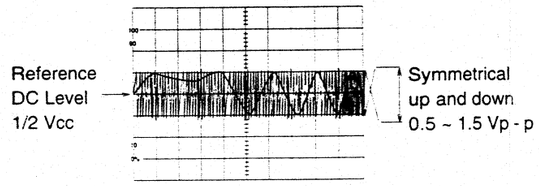


Figure 12-1

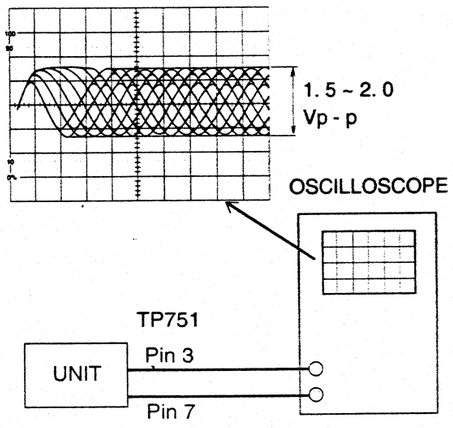
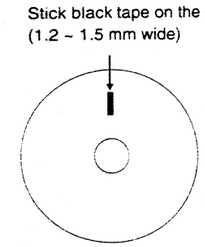


Figure 12-2



A disc other than the test disc can be used. Do not put the black tape on the initialized section (TOC).

Figure 13-1

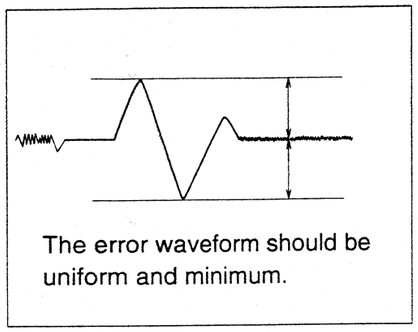


Figure 13-2

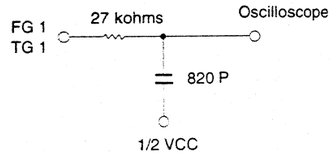


Figure 13-3

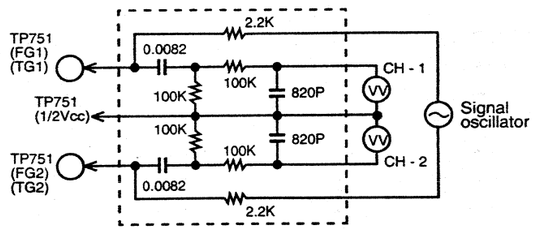
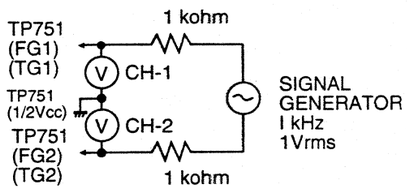


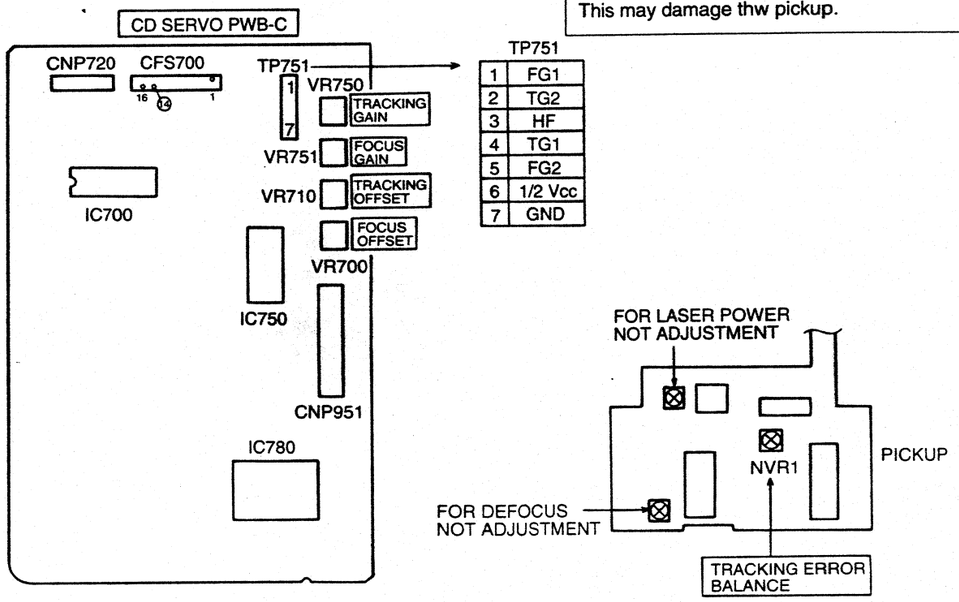
Figure 13-4



The jig (BPF) are recommended to reduce high frequency noise during alignment. As an alternative, two 1 kohm resistors can be used to achieve the same results.

Figure 13-5

Do not connect the cable on the pickup in the power ON state. This may damage thw pickup.



TP751	
1	FG1
2	TG2
3	HF
4	TG1
5	FG2
6	1/2 Vcc
7	GND

Figure 13-6 ADJUSTMENT POINTS

NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with "Fusible" is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P): Polypropylene type
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.

1. Tuner
   ( ): AM mode
   Marking except for ( ): FM mode
2. CD
   ( ): Play mode
   Marking except for ( ): Stop satate
3. Audio
   ( ): Record mode
   Marking except for ( ): Play mode

- Schematic diagram and Wiring Side of P.W. Board for this model are subject to change for improvement without prior notice.
- Parts marked with "⚠" (▭▭▭) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
SW1	BAND	FM
SW201	R/P SELECTOR	PLAY
SW202	DUBBING SPEED	NORMAL
SW203	TAPE SELECTOR/FM MODE	NORMAL/FM NONO
SW251	BEAT CANCEL	A
SW401	TAPE 1 MAIN	OFF
SW402	TAPE 2 MAIN	OFF
SW403	TAPE 1 DIRECTION	A
SW404	TAPE 2 STOP	ON
SW405	TAPE 1 PLAY	OFF
SW651	POWER/FUNCTION	ON/CD

REF. NO	DESCRIPTION	POSITION
SW702	PICKUP IN	ON
SW951	PLAY/REPEAT	OFF
SW952	STOP	OFF
SW953	UP/CUE▶▶I	OFF
SW954	DOWN/REVIEWI◀◀	OFF
SW955	PAUSE	OFF
SW956	MEMORY	OFF
SW957	CLEAR	OFF
SW958	CALL	OFF
SW959	RANNDOM	OFF
SW961	CD LID	OFF

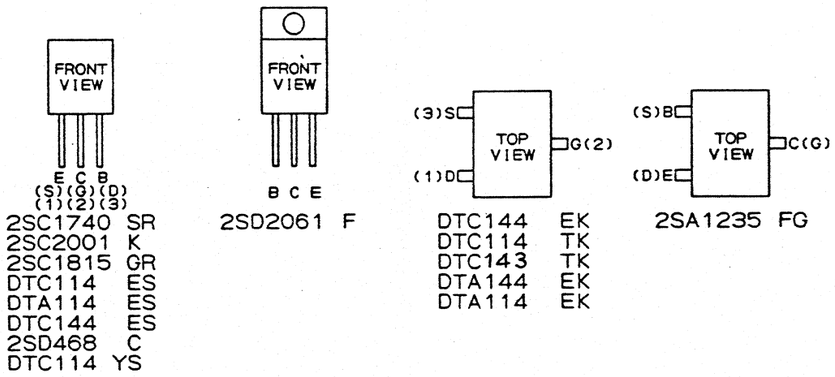


Figure 14 TYPES OF TRANSISTOR

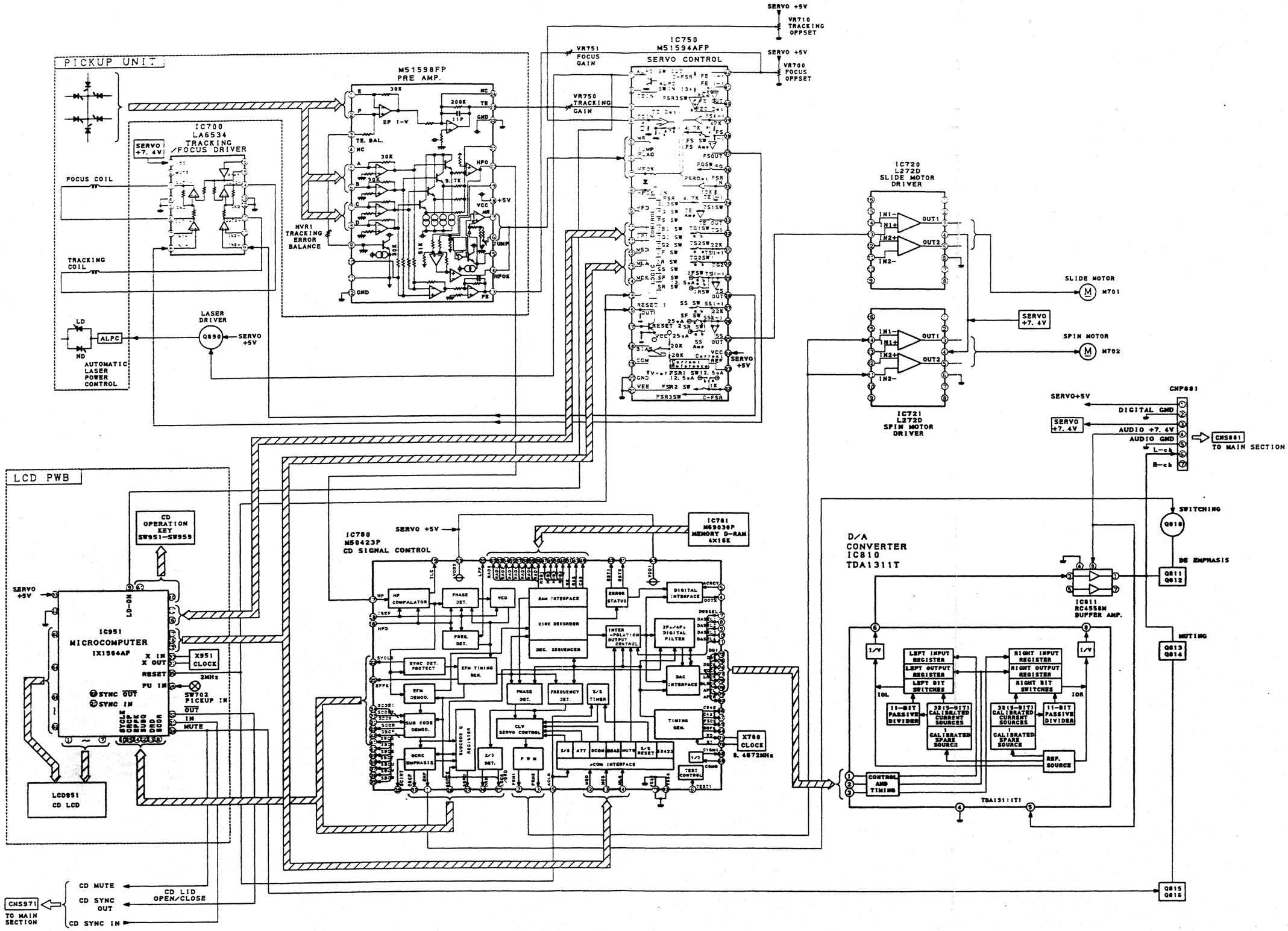


Figure 15 BLOCK DIAGRAM (1/2)

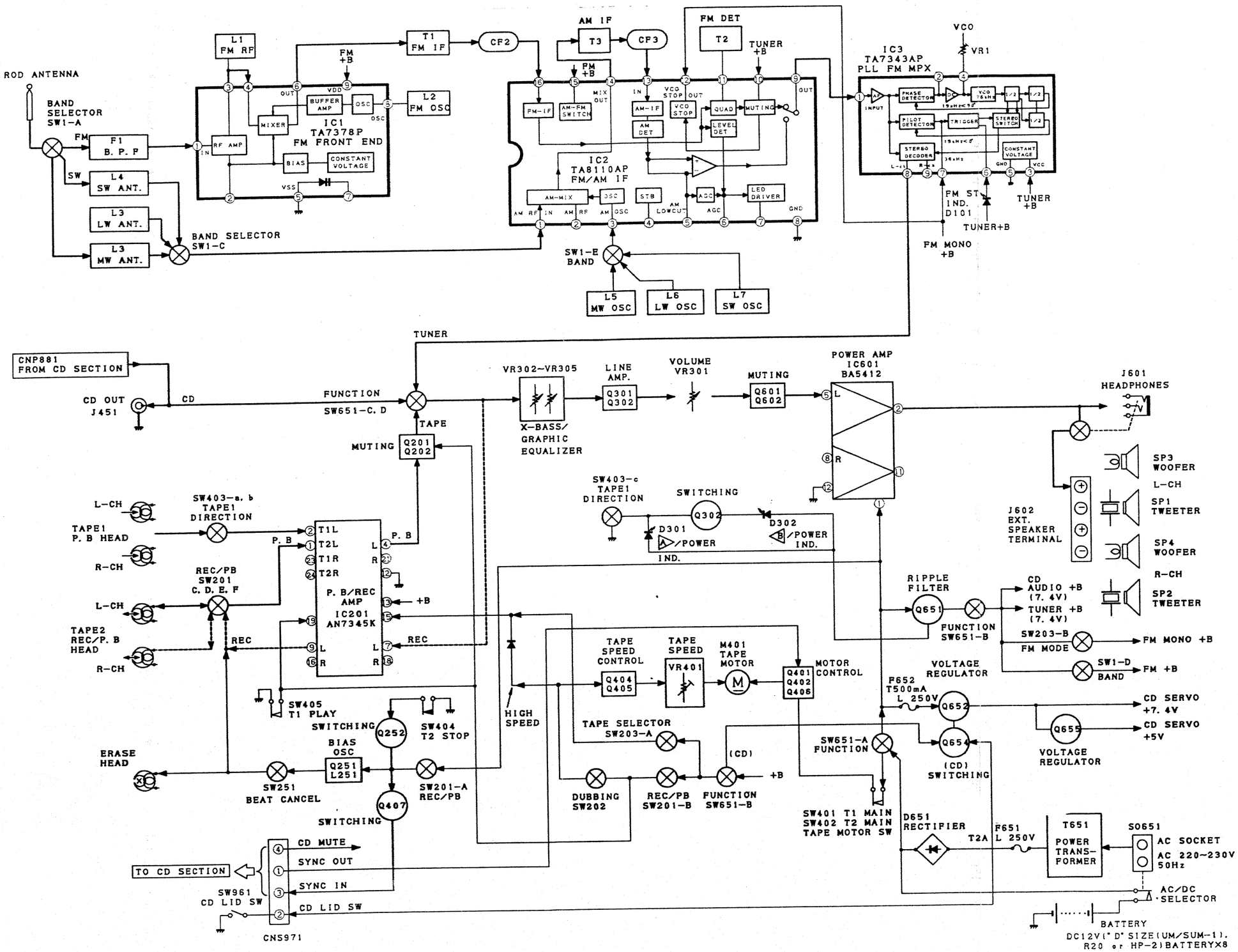
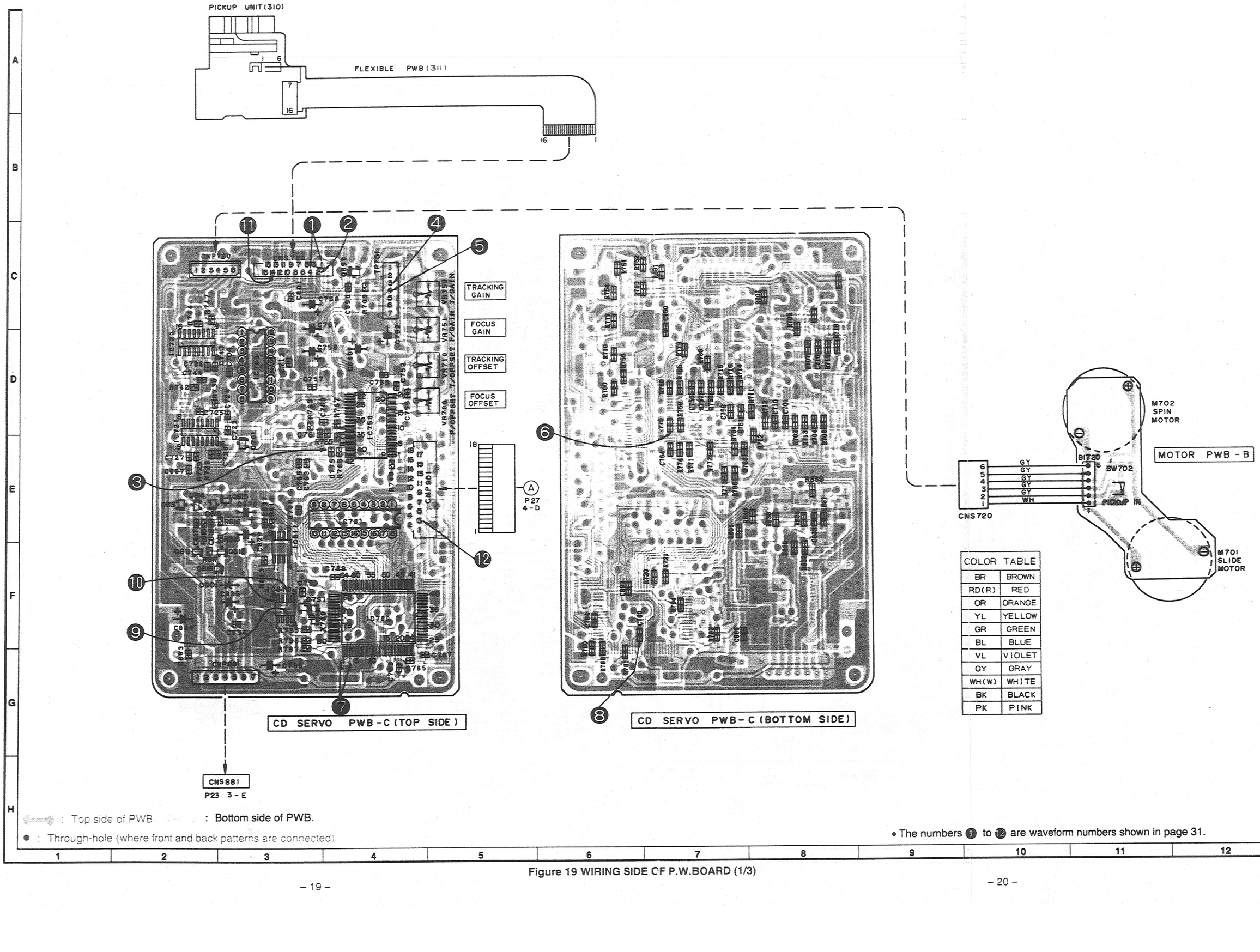


Figure 17 BLOCK DIAGRAM (2/2)

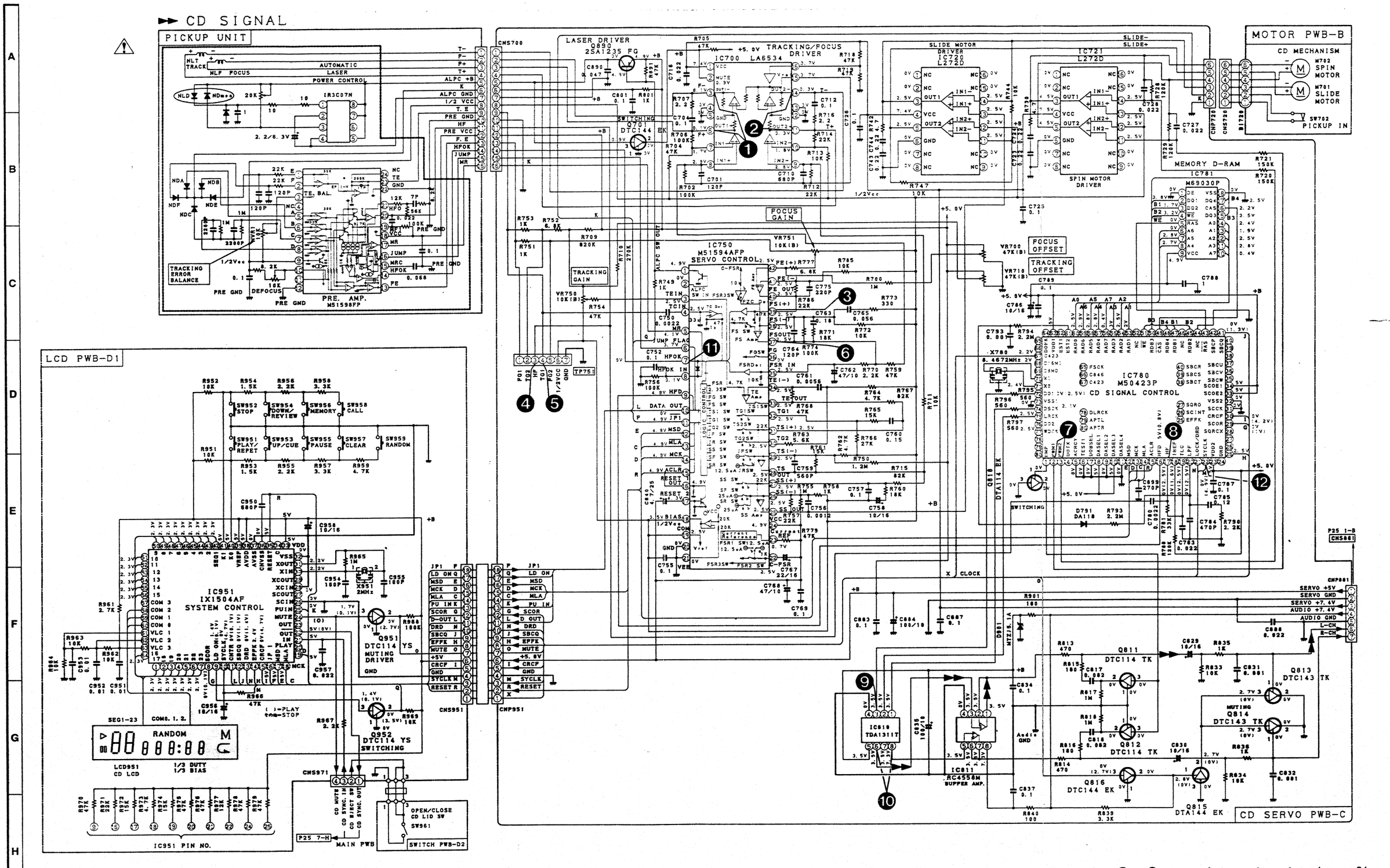


: Top side of PWB. : Bottom side of PWB.

● : Through-hole (where front and back patterns are connected)

• The numbers ❶ to ⓬ are waveform numbers shown in page 31.

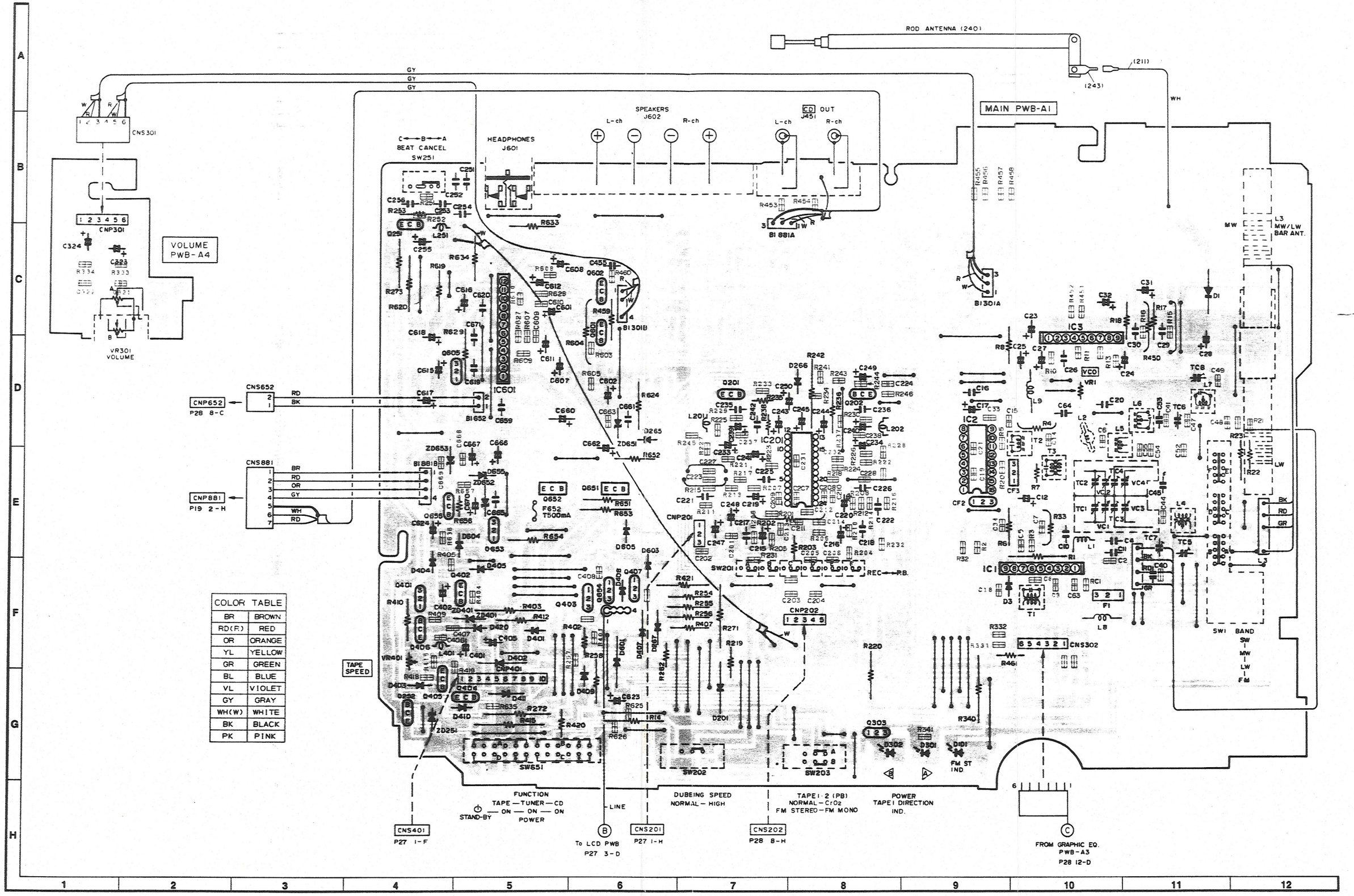
Figure 19 WIRING SIDE CF P.W.BOARD (1/3)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 14.

•The numbers ❶ to ⓬ are waveform numbers shown in page 31.

Figure 21 SCHEMATIC DIAGRAM (1/3)



COLOR TABLE	
BR	BROWN
RD(R)	RED
OR	ORANGE
YL	YELLOW
GR	GREEN
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK

Figure 23 WIRING SIDE CF P.W.BOARD (2/3)

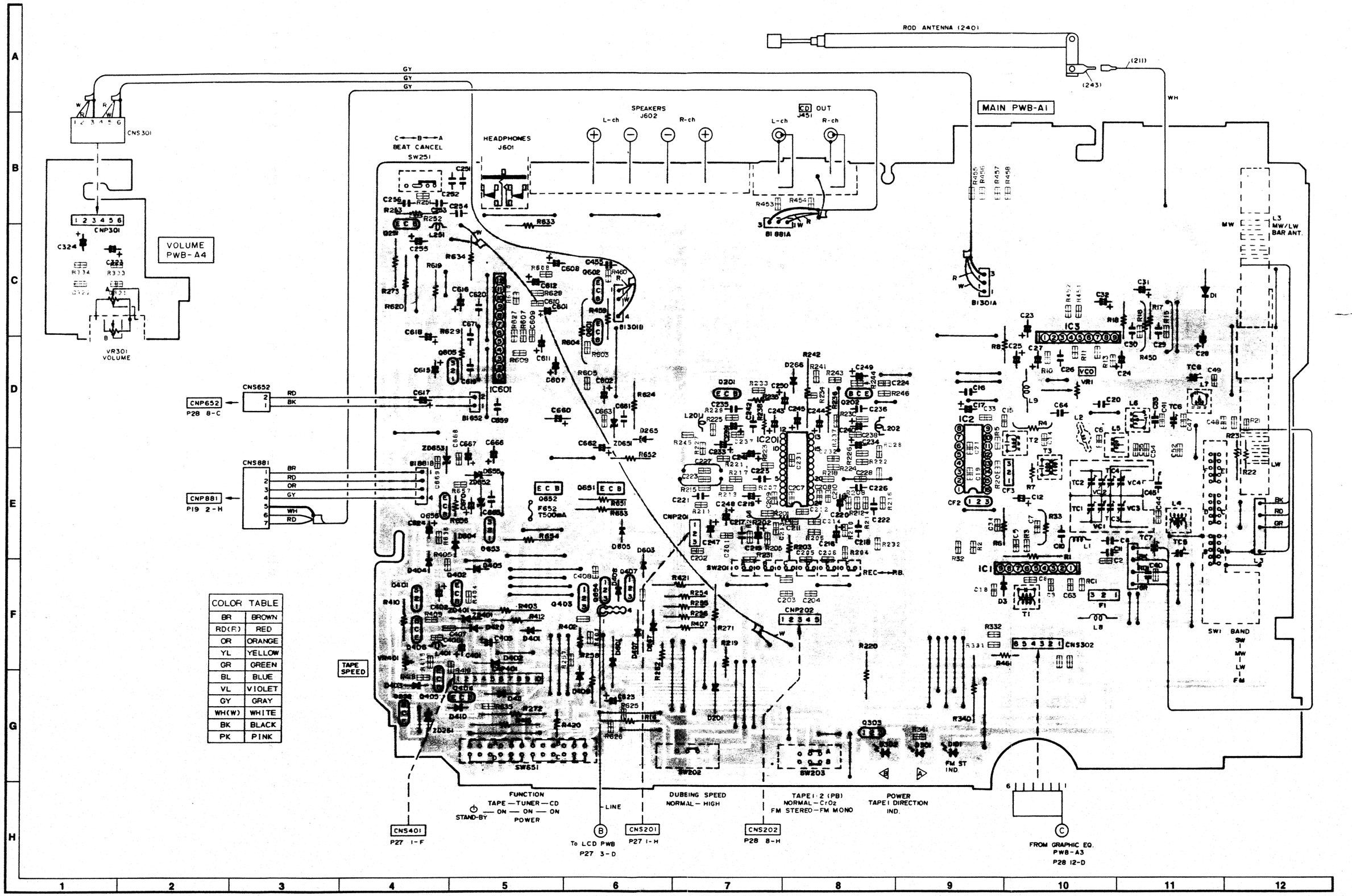
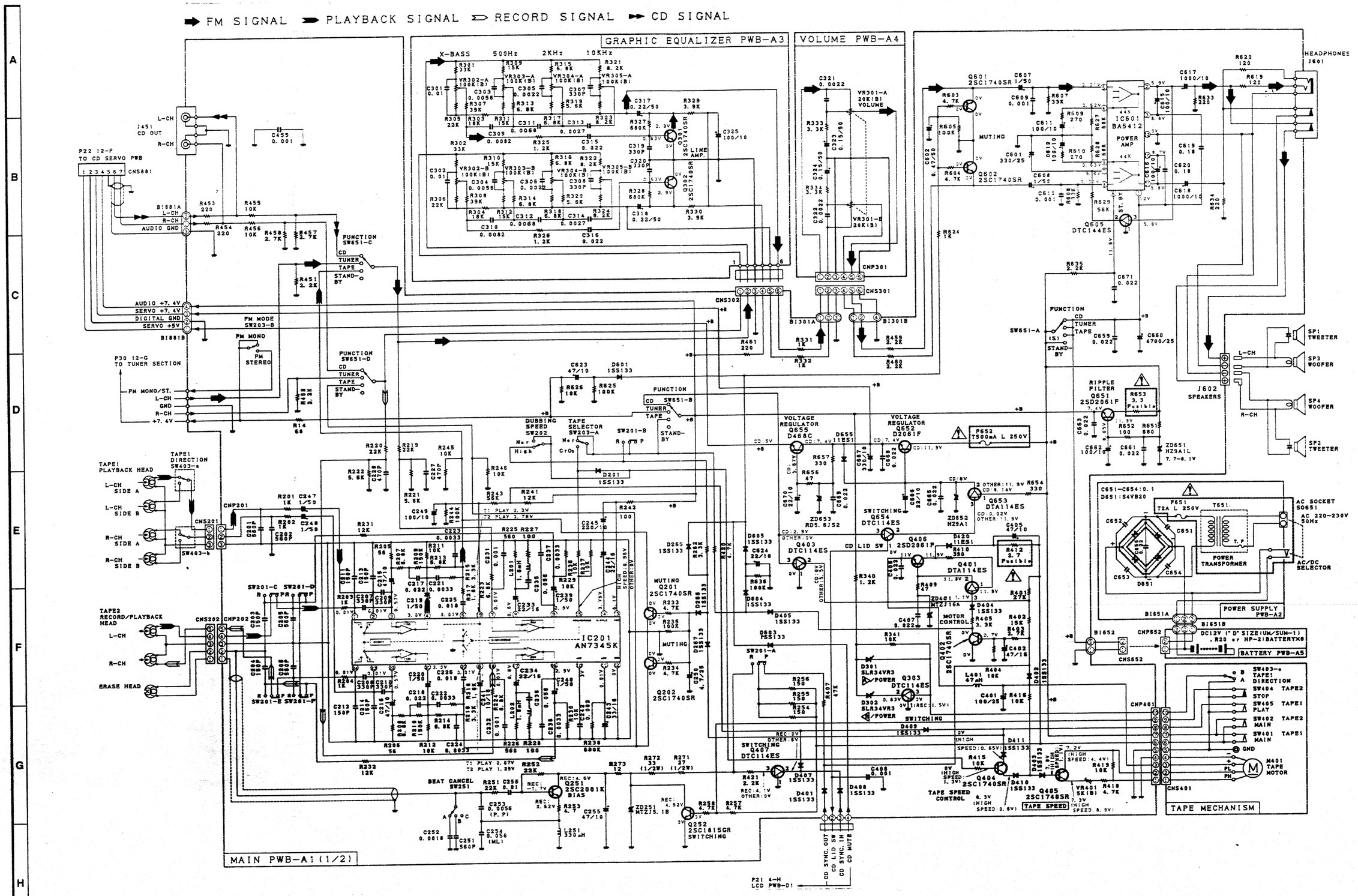
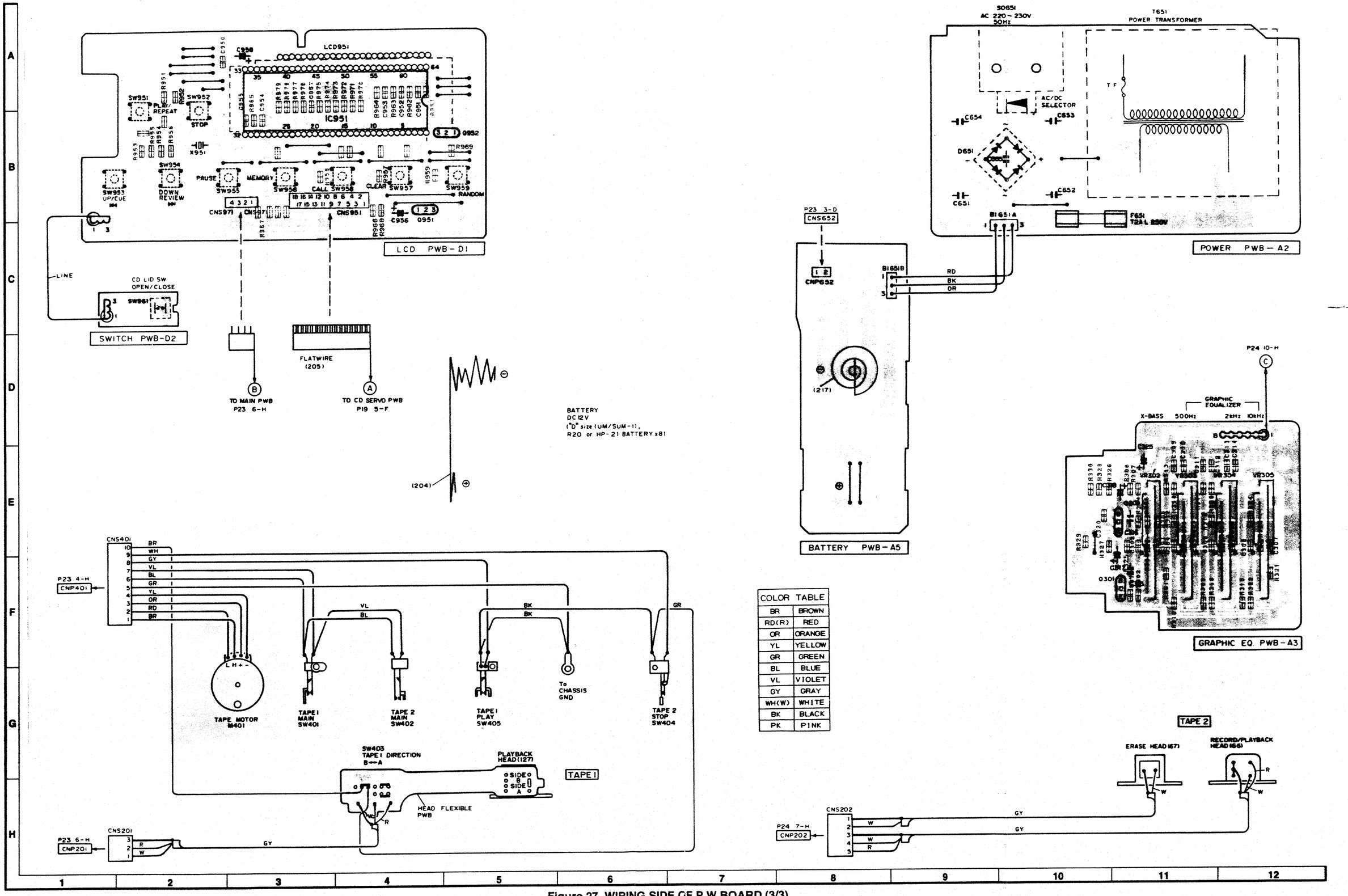


Figure 23 WIRING SIDE OF P.W.BOARD (2/3)



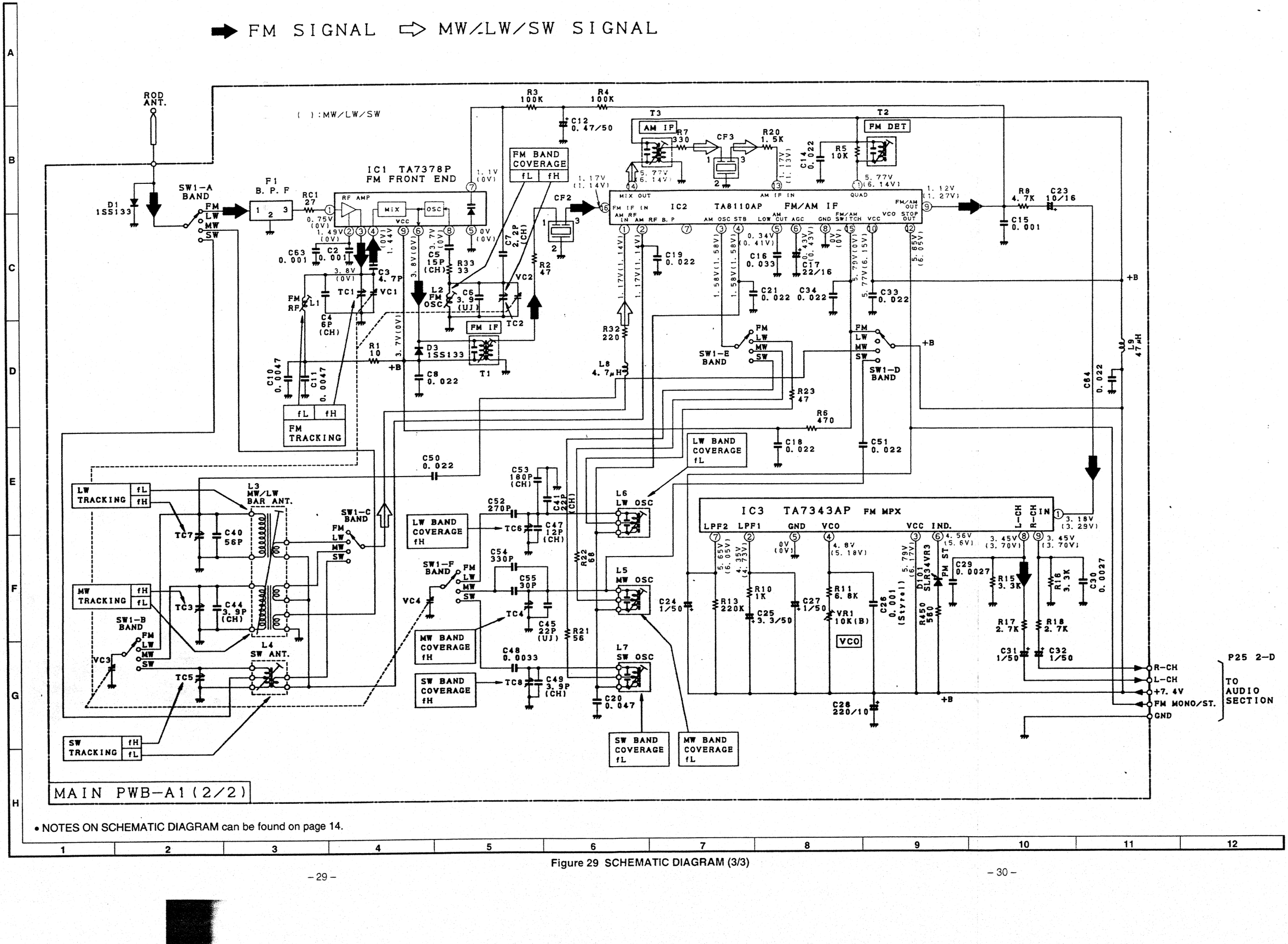
• NOTES ON SCHEMATIC DIAGRAM can be found on page 14.

Figure 25 SCHEMATIC DIAGRAM (2/3)



COLOR TABLE	
BR	BROWN
RD(R)	RED
OR	ORANGE
YL	YELLOW
GR	GREEN
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK

Figure 27 WIRING SIDE OF P.W.BOARD (3/3)

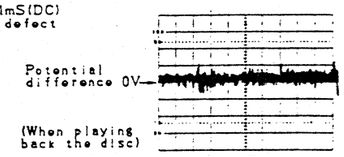


• NOTES ON SCHEMATIC DIAGRAM can be found on page 14.

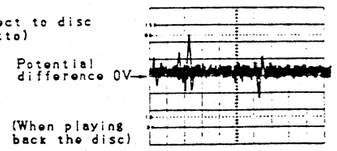
Figure 29 SCHEMATIC DIAGRAM (3/3)

WAVEFORMS OF CD CIRCUIT

❶ 2V/1mS(DC)
*No defect

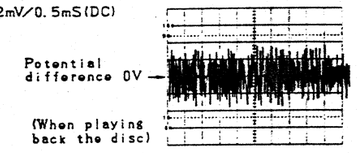


*Defect to disc (ditto)

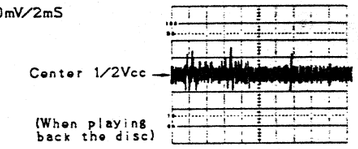


If defect exists, pulse-like noise as shown above appears.
(Similar noise is found also in ❷ output and TE, FE signals.)

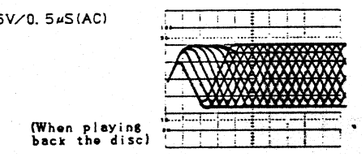
❷ 0.2mV/0.5mS(DC)



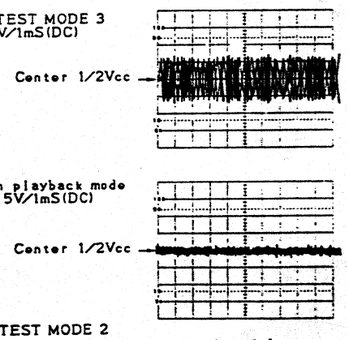
❸ 20mV/2mS



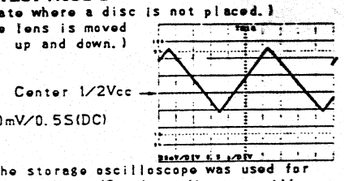
❹ 0.5V/0.5μS(AC)



❺ In TEST MODE 3
0.5V/1mS(DC)

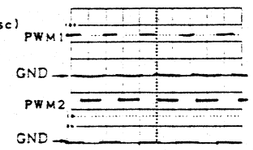


❻ In TEST MODE 2
(State where a disc is not placed.)
(The lens is moved up and down.)

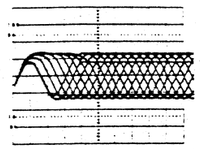


*The storage oscilloscope was used for measurement. (On the ordinary oscilloscope the bright point appears as triangular wave as shown above.)

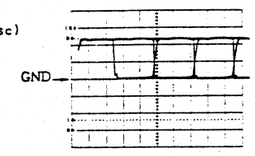
❼ Spin motor PWM output
(When playing back the disc)
0.2V/10μS(DC)
Use10:1 probe to connect



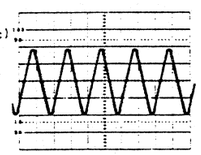
❽ 50mV/0.5μS(AC)
(When playing back the disc)
Use10:1 probe to connect



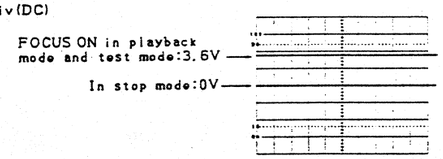
❾ 2V/0.1μS(DC)
(When playing back the disc)



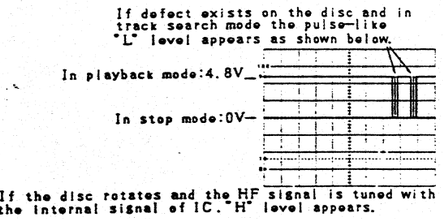
❿ 1kHz 0dB
(When playing back the test disc)
1V/0.5mS(AC)



⓫ 2Vdiv(DC)



⓬ 2Vdiv(DC)


If defect exists on the disc and in track search mode the pulse-like "L" level appears as shown below.
In playback mode:4.8V
In stop mode:0V
If the disc rotates and the HF signal is tuned with the internal signal of IC, "H" level appears.

TROUBLESHOOTING (CD SECTION)

When the CD does not function

When the CD section does not operate When the objective lens of the optical pickup is dirty,this section may not operate.Clean the objective lens,and check the playback operation.When this section does not operate even after the above step is taken,check the following items.
Remove the cabinet and follow the troubleshooting instructions.
*Track skipping and/or no TOC(Table Of Contents) may be caused by a build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

1. Turn the power off.
2. Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.

Note: Do not touch the lens with the bare hand.

Set a disc, turn on the power, set the FUNCTION switch to CD, and check the voltage of flat wire(1-9pin).

Is the voltage as shown in the schematic diagram being output?
- No → Check the power circuit of the main unit.
- Yes ↓

Does the LCD function?
- No → Check the item of "The LCD does not function".
- Yes ↓

Does the laser go on in test mode 1?
- No → Check the item of "The laser does not go on".
- Yes ↓

Is test mode 1 switched to test mode 2?
- No → Check the item of "Does not focus".
- Yes ↓

Test mode 2 switched to mode 3 does the spin motor run normally?
- No → Check the item of "The spin motor's CLV servo is defective".
- Yes ↓

Is the output of pin 3 (HF) of TP751 flat in test mode 4?
- No → Check the item of "HF error".
- Yes ↓

When the pickup moves to a track using the UP/DOWN button in test mode 5, is there audio output?
- No → Does the slide motor run?
  - No → Check the item of "The slide motor does not run".
  - Yes → Check the item of "There is no audio output".
- Yes ↓

When the power is turned off and then on, is the unit initialized?
- No → Is the pickup returned to the inner position?
  - No → Is the pickup in switch set to OFF?
    - OFF → Check the peripheral circuits of the control microcomputer.
    - ON → The pickup in switch is defective.
  - Yes → The pickup in switch is defective (ON).
- Yes ↓

Does the disc track up in order (1st track, 2nd track,...)?
- No → Check the item of "Track searching is impossible".
- Yes ↓

Does the disc play back several ten seconds even after starting playback?
- No → Check the item of "The slide servo does not function".
- Yes ↓

Normal

The LCD does not function.

Is there +5 V at pin 6 of CNP951?
- No → Check the PWB patterns from pin 1 of flat wire to CNP951.
- Yes ↓

Is there +5 V at pin 24 (Vcc) of IC750?
- No → Check the PWB patterns from pin 1 of flat wire to pin 24 (Vcc) of IC750.
- Yes ↓

Is there +5 V at pins 16 ($\overline{ACLR}$) and 17 (RESET 1 OUT) of IC750?
- No → If C840 is not short-circuited, IC750 is defective.
- Yes ↓

Is there +5 V at pin 2 of CNP951?
- No → Check the PWB pattern from IC750.
- Yes ↓

When shorting the both ends of C840, do the pins 16 ($\overline{ACLR}$) and 17 (RESET 1 OUT) of IC750 read 0 V?
- No → IC750 is defective.
- Yes ↓

When shorting C840 for a moment, does the LCD function?
- No → Check the LCD PWB of CD.
- Yes ↓

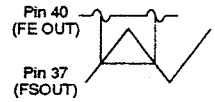
C840 is defective.

The laser does not go on.

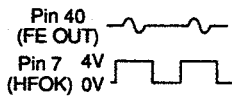
- Is pin 17 of CNP951 at a high level?
  - No → Check the LCD PWB of CD. (Check the LD ON terminal of pin 9 of IC951.)
  - Yes ↓
- Is there +5 V at the Q890 emitter?
  - No → Check the +5 V line of pin 1 of CNP881.
  - Yes ↓
- Is there +5 V at the Q890 collector?
  - No → Is there a low level (+0.1 V) between pin 17 of CNP951 and R749?
    - No → Check the PWB pattern between pin 17 of CNP951 and R749.
    - Yes ↓
    - Is there +4.1 V at the Q890 base?
      - No → Check between pin 1 of IC750 and Q890 base.
      - Yes ↓
      - Q890 is defective.
  - Yes ↓
- Is there +5 V at pin 5 of CFS700?
  - No → The PWB pattern between Q890 and pin 5 of CFS700 is damaged.
  - Yes ↓
- Check the CFS700 and Flexible PWB. If they are normal, the pickup is defective.

Does not focus.

- When the disc is removed, is the pickup moving up and down?
  - No → Check the item of "The saw-tooth wave for focus servo does not output".
  - Yes ↓
- Is the focus gain adjusting VR751 set to the minimum position?
  - Yes → Readjust the focus gain.
  - No ↓
- When the disc is set, is the following waveform input to pin 41 (FE OUT) of IC750?
  - No → Is a waveform output at pin 42 (FE(+)) of IC750?
    - No → Is a waveform output at pin 13 ($\overline{MLA}$) of IC750?
      - No → Check the flexible PWB. If OK, the pickup is defective.
      - Yes → Disconnection of the signal line. Check the PWB pattern and parts.
    - Yes ↓
    - IC750 is defective.
  - Yes ↓

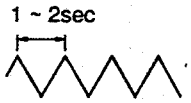


- Is the waveform shown at right input at pin 7 (HFOK) of IC750?
  - No → The pickup is defective.
  - Yes ↓
- IC750 is defective.



The saw-tooth wave for focus servo does not output.

- Is there +5 V at pin 24 (Vcc) of IC750?
  - No → The +5V line of IC750 is defective.
  - Yes ↓
- Is a saw-tooth wave generating at pin 37 (FSOUT) of IC750?
  - No → Does the saw-tooth wave look like the following waveform?
    - No → Check the C767 and R779 (pins 22 and 23 of IC750). If OK, IC750 is defective.
    - Yes. (The saw-tooth wave oscillates to the positive side once.)
    - Check the peripheral circuits of pin 36 (FSR IN) of IC750. If OK, IC750 is defective.
  - Yes ↓

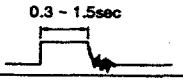


- Is the saw-tooth wave being input to pin 8 of IC700 (same waveform as shown above)?
  - No → The signal line between pin 35 (FSOUT) of IC750 and pin 8 of IC700 is connected improperly.
  - Yes ↓
- Is the saw-tooth wave generating between pins 3 and 6 of IC700 (same waveform as shown above)?
  - No → Check the peripheral parts of IC700 and the power line. If OK, IC700 is defective.
  - Yes ↓
- Is the saw-tooth wave generating between pins 2 and 3 of CFS700 (same waveform as shown above)?
  - Yes → The CFS700 and flexible PWB are connected improperly or the pickup is defective.
  - No ↓
- The PWB pattern is damaged.

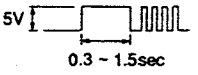
The spin motor's CLV servo is defective.

Is the spin motor running?

- No → When test mode 2 is switched to test mode 3, does voltage generate between pins 11 and 14 of IC720 for approximately 0.3 - 1.5 seconds?
  - Yes → Faulty spin motor or disconnection



  - No → When test mode 2 is switched to test mode 3, is pin 3 (PWM2) of IC780 at a high level for 0.3 - 1.5 seconds and then does a pulse generate?
    - No → The IC780 or microcomputer section is defective.



    - Yes → Faulty IC721 or disconnection
- Yes. (Runs at extremely high speed)

Is an eye pattern being output to pin 3 (HF) of test point TP751? (Even an unclear waveform is allowable.)

- No → Check if the objective lens of the pickup is dirty. If so, clean it. Check the connection between pin 11 (HF) of CFS700 and pin 17 (HF) of IC780. If OK, the pickup is defective.
- Yes. (Waveform of approximately Vp-p 1.5 V)

Is the eye pattern of Vp-p 1.5 V being output to pin 17 (HF) of IC780?

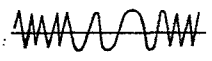
- No → Check the PWB pattern and C780.
- Yes

IC780 is defective.

HF error

Is the output of pin 4 (TG1) of TP751 (tracking error signal) normal in test mode 3?

- Error → Is there any output to pin 9 of CFS700?
  - No → Check the connection between the CFS700 and flexible PWB. If OK, the pickup is defective.
  - Yes → Check the connection between pin 9 of CFS700 and pin 3 (TEIN) of IC750 (or pin 4 (TG1) of TP751) and the PWB pattern.
- Normal



Is the tracking gain adjusting VR750 set to the minimum position?

- Yes → Readjust the tracking gain.
- No

.Is there any tracking output to pin 28 (TSOUT) of IC750 in test mode 4?

- No → Check the peripheral parts of IC750. If OK, IC750 is defective.
- Yes

Is there any output between pins 11 and 14 of IC700?

- No → Check the peripheral parts of IC700. If OK, IC700 is defective.
- Yes

Check the connection between the IC700, CFS700 and flexible PWB. If OK, the pickup is defective.

There is no audio output.

There is no audio output from both L and R channels.

- No → Check the Q813 and Q814 (for muting). Check the connection between the pins 1 and 20 of IC810 and the pins 6 and 7 of CNP881.
- Yes

Is the supply voltage of IC810 normal?

- No → Check the power line and D901.
- Yes

Are the supply voltages of IC811 normal?

- No → Check the power line and the power circuit of the main unit.
- Yes

Is the signal of pins 1 and 8 of IC810 being output?

- No → Is the digital signal being input to pins 1, 2 and 3 of IC810?
  - No → Check the connection between the IC780 and IC781. If OK, IC780 or IC781 is defective.
  - Yes → IC810 is defective.
- Yes → Check the IC811, Q811 and Q812 along the signal flow and then the connection between then.

Track searching is impossible.

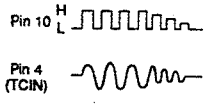
Does the slide motor run in the test mode using the UP/DOWN button?
- No → Check the item of "The slide motor does not run".
- Yes ↓

During normal playback track searching, is the following waveform being input to pin 4 (TCIN) of IC750?

- No → Check the connection of C750, etc.
- Yes ↓

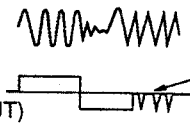
Is the following waveform being output to pin 10 (DATA OUT) of IC750 during track jump?
- No → IC750 is defective.
- Yes ↓

* Track jump: When the following waveform is being output to pin 28 (TSOUT) of IC750 during track searching.



Is the following waveform being output to pin 16 of CFS700 during track jump?
- No → Check the CFS700, flexible PWB and pickup.
- Yes ↓

Is the following waveform being output to pin 28 (TSOUT) of IC750 during track searching?
- No → IC750 is defective.
- Yes ↓



Check the IC951 and the LCD PWB of CD.

The slide motor does not run.

When the UP/DOWN button is pressed in the test mode, is the slide feed signal being output between pin 25 (SS OUT) of IC750 and pin 13 of IC720 (1/2 Vcc)?
- No → Check the peripheral parts of IC750. If OK, IC750 is defective.
- Yes ↓

Is the slide feed signal being output between pins 3 and 5 of IC720?
- No → Check the connection between pin 13 of IC720 and pin 25 (SS OUT) of IC750. If OK, IC720 is defective.
- Yes ↓

Is the slide feed voltage being supplied to the both ends of the slide motor?
- No → Check the CNP720 and CNS720.
- Yes ↓

Check the slide motor. Supply 2.0 VDC to the slide motor terminal, and if the slide motor does not function, it is defective.

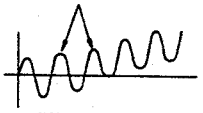
The slide servo does not function.

Is the slide control voltage waveform shown at right being input to pin 27 (SS(+)) of IC750 during playback?
- No → Check the parts between pins 27 (SS(+)) and 28 (TSOUT) of IC750 and then the connection of PWB pattern.
- Yes ↓

Is the waveform shown at right being output to pin 25 (SS OUT) of IC750?
- No → IC750 is defective.
- Yes ↓

The slide servo system is not defective. Check again from the beginning.

Rotation cycle of spin motor



Voltage differs according to disc eccentricity

FUNCTION TABLE OF IC

IC780 VHiM50423P/-1 (M50423P): CD Signal Control (1/2)

Pin No.	Terminal Name	Input/ Output	Function
1	EMP	Output	Emphasis code output Emphasis provided = "1"
2	PWM1	Output	Disc motor drive PWM output 1: "-"
3	PWM2	Output	Disc motor drive PWM output 2: "+"
4*	DOTX	Output	Digital OUT
5	ACRCY	Input	Digital OUT channel status clock accuracy input
6	TEST1	Input	Test mode selection input Ordinary playback = "0"
7	DOBSEL	Input	Selection of number of output data bits 18 bits = "1"
8	DASEL1	Input	DAC interface selection input 1
9	DASEL2	Input	DAC interface selection input 2
10	DASEL3	Input	DAC interface selection input 3
11	DASEL4	Input	DAC interface selection input 4
12	MSD	Input	Microcomputer interface serial data input
13	MCK	Input	Microcomputer interface clock input
14	MLA	Input	Microcomputer interface data latch clock input
15	ACLR	Input	Microcomputer interface register clear input
16	HFD	Input	Playback signal lack signal input
17	HF	Input	Playback signal input
18	IREF	Input	Detection/PLL circuit reference current input
19	TLC	Output	Slice level control output
20	LPF	Input/ Output	PLL loop filter connection terminal
21	LOCK/DRD	Output	Sync. state/Low disc rotation state output
22	SYCLK	Output	Frame sync. state output Sync. = "1"
23	VDD2	Input	Detection/PLL circuit Analog section exclusive-use power supply 5 V
24*	DRD	Output	Low disc rotation state output
25	EFFK	Output	EFM frame clock output Duty 50%
26*	SCINT	Output	Subcode Q output interruption signal output
27*	SQRO	Output	Subcode Q register output
28*	SQRCK	Input	Subcode Q register data shift clock input
29	SCOR	Output	Subcode sync. signal output S0 + S1
30	CRCF	Output	Subcode Q Output of CRC check result output CRCOK = "1"
31	SCCK	Input	Shift clock input for subcode serial output
32	VSS2	—	GND 0 V
33	SCOE2	Input	SBCP to SBCS output enable input
34	SCOE1	Input	SBCT to SBCW output enable input
35*	SBCW	Output	Subcode Wch output
36*	SBCV	Output	Subcode Vch output
37*	SBCU	Output	Subcode Uch output
38*	SBCT	Output	Subcode Tch output
39*	SBCS	Output	Subcode Sch output
40*	SBCR	Output	Subcode Rch output
41	SBCQ	Output	Subcode Qch output

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC780 VHiM50423P/-1 (M50423P): CD Signal Control (2/2)

Pin No.	Terminal Name	Input/ Output	Function
42*	SBCP	Output	Subcode Pch output
43	$\overline{RAS}$	Output	Row address strobe signal output
44	NC	—	—
45	RDB2	Input/ Output	External memory data input/output 2
46	NC	—	—
47	RDB1	Input/ Output	External memory data input/output 1
48	RDB4	Input/ Output	External memory data input/output 4
49	$\overline{CAS}$	Output	Column address strobe signal output
50	RDB3	Input/ Output	External memory data input/output 3
51	$\overline{WE}$	Output	Write enable signal output
52	NC	—	—
53	RAD1	Output	External memory address output 1
54	RAD2	Output	External memory address output 2
55	RAD3	Output	External memory address output 3
56	RAD7	Output	External memory address output 7
57	RAD4	Output	External memory address output 4
58	RAD5	Output	External memory address output 5
59	RAD6	Output	External memory address output 6
60	RAD0	Output	External memory address output 0
61	EST2	Output	Error state output 2 C2 decoder correction disabled = "1"
62*	EST1	Output	Error state output 1 C1 decoder error detection = "1"
63	VDD1	Input	Power supply +5 V
64*	DOFK	Output	OSC frame clock output 7.35 kHz Duty = 50 %
65*	FSCK	Output	Clock output 44.1 kHz
66*	C846	Output	Clock output 8.4672 MHz
67*	C423	Output	Clock output 4.2336 MHz
68*	C16MI	Input	1/2-frequency-divider input Feedback resistor provided
69*	C8MO	Output	1/2-frequency-divider output
70	XI	Input	Crystal oscillator input Feedback resistor provided
71	XO	Output	Crystal oscillator output
72	DO1	Output	DAC. Serial data output
73	VSS1	—	DAC. 0 V
74	DSCK	Output	DAC. Data shift clock output
75	LRCK	Output	DAC. Left/right clock output
76*	DO2	Output	DUAL DAC. Serial data output Rch
77	WDCK	Output	DAC. Word clock
78*	DLRCK	Output	DAC. Left/right clock output 2
79*	APTL	Output	Deglitch clock L
80*	APTR	Output	Deglitch clock R

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC951 RH-iX1504AFZZ (IX1504): Control Microcomputer

Pin No.	Terminal Name	Input/ Output	Function
1-7	S17-S23	Output	LCD segment output
8	SCOR	Input	Sub-code Q data frame sync
9	LD ON	Output	Laser diode control
10	SYCLK	Input	Frame cycle status
11	CNTR	Input	Data input from servo IC
12	SUBQ	Input	Sub-code Q data input
13	DRD	Input	Disc motor low rotating status
14	EFEK	Input	Clock for sub-code Q
15	CRCF	Input	CRC check of sub-code Q data
16	JP1	Output	Jump control signal
17	MSD	Output	Serial data output
18	MLA	Output	Latch for serial data
19	MCK	Output	Clock for serial data
20*	PLAY	Input	Play start from external
21	IN	Input	CD synchro mode input
22	OUT	Output	CD synchro mode output
23*	OUT	Output	CD synchro mode output
24	MUTE	Output	Audio muting control
25	PU IN	Input	Innermost position detection signal Innermost position=0
26	SC IN	Input	Servo control
27*	SC OUT	Output	Servo control
28	XC IN	Input	Clock signal
29*	XC OUT	Output	Clock signal
30	X IN	Input	Clock signal
31	X OUT	Output	Clock signal
32	VSS	—	Ground
33	VDD	—	Power supply for micro-computer 5 V
34*	C	Input	Terminal for externally connecting capacitor
35	RESET	Input	Reset input
36	CNVSS	Input	Connect to earth
37	AVSS	Input	Earth for A-D commutator
38	AVDD	—	Power supply for A-D commutator
39	VREF	—	Reference voltage for A-D commutator
40, 41	K0, K1	Input	KEY scan input
42	S1	Output	LCD segment output
43-53	S2-S12	Output	LCD segment output
54	S13	Output	LCD segment output
55, 56	S14,S15	Output	LCD segment output
57*	COM 3	Output	LCD common output
58-60	COM 2-0	Output	LCD common output
61-63	VLC 1-3	Output	Power supply for LCD
64	S16	Output	LCD segment output

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC810 VHiTDA1311T-T (TDA1311T): D/A Converter

Pin No.	Terminal Name	Input/ Output	Function
1	BCK	Input	Bit clock input
2	WS	Input	Word select input
3	DATA	Input	Data input
4	GND	—	Ground

Pin No.	Terminal Name	Input/ Output	Function
5	VDD	Input	Supply voltage +5V
6	VOL	Output	Left channel output
7	NC	—	Not connected
8	VOR	Output	Right channel output

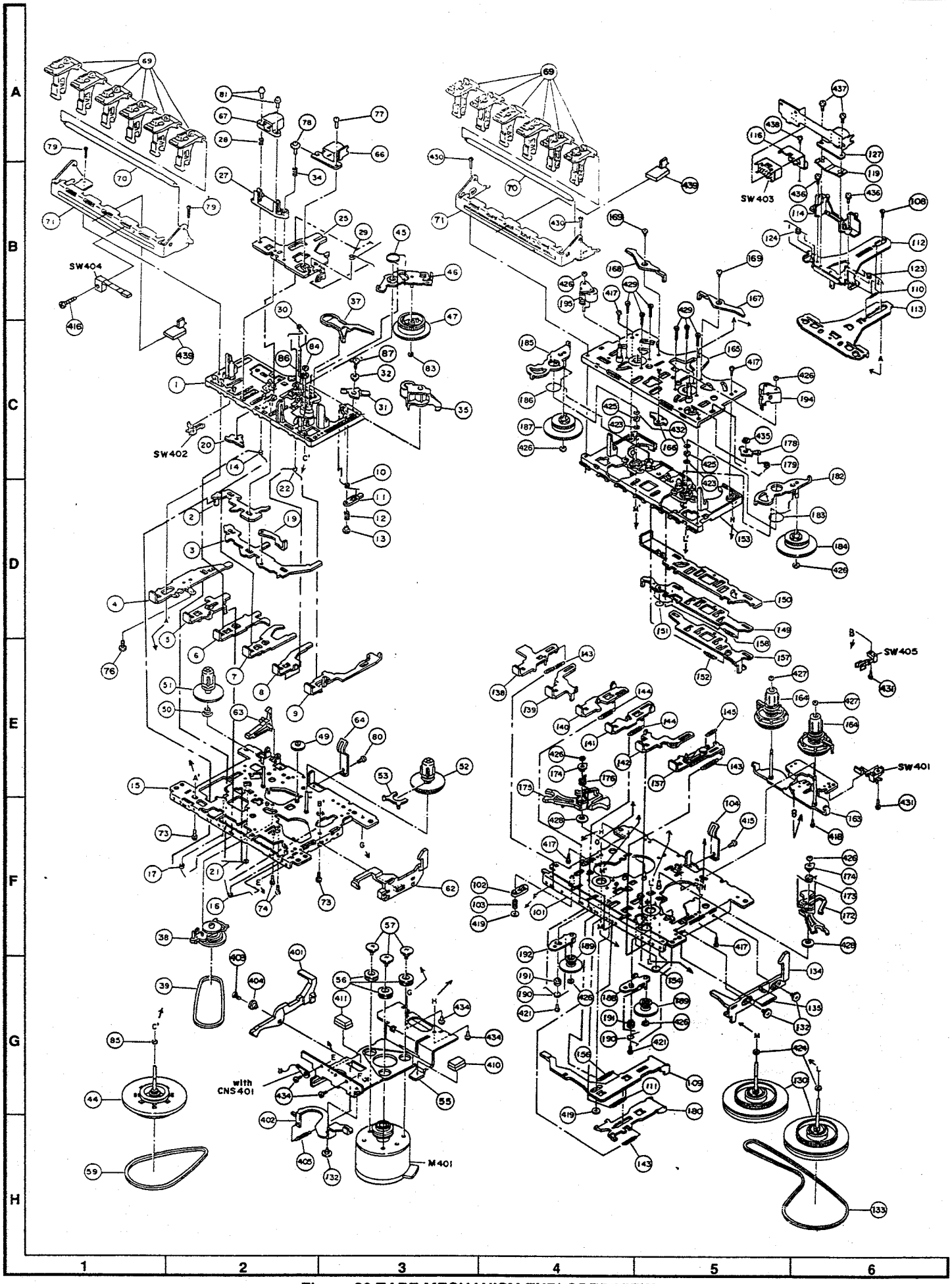


Figure 39 TAPE MECHANISM EXPLODED VIEW

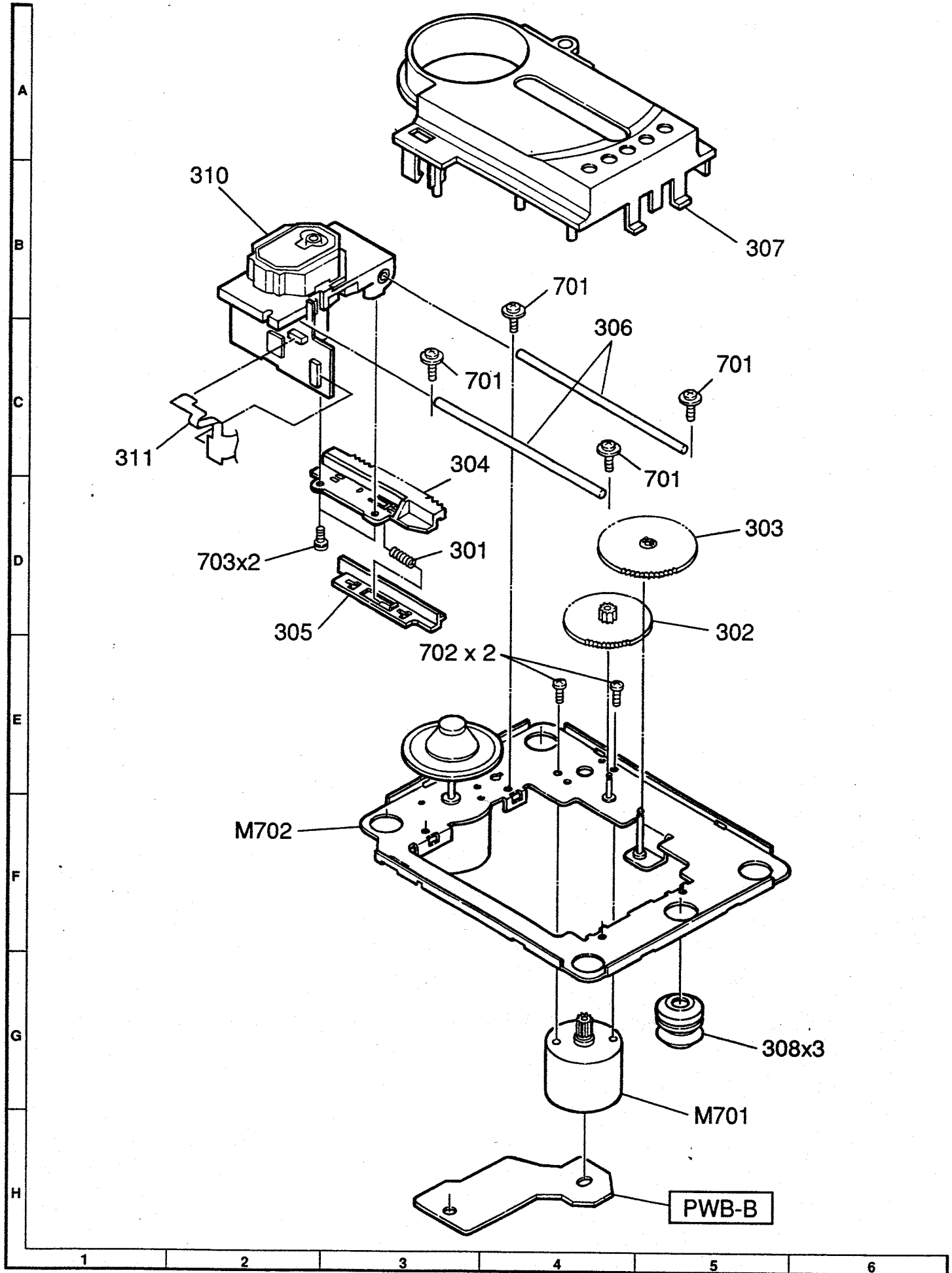


Figure 40 CD MECHANISM EXPLODED VIEW

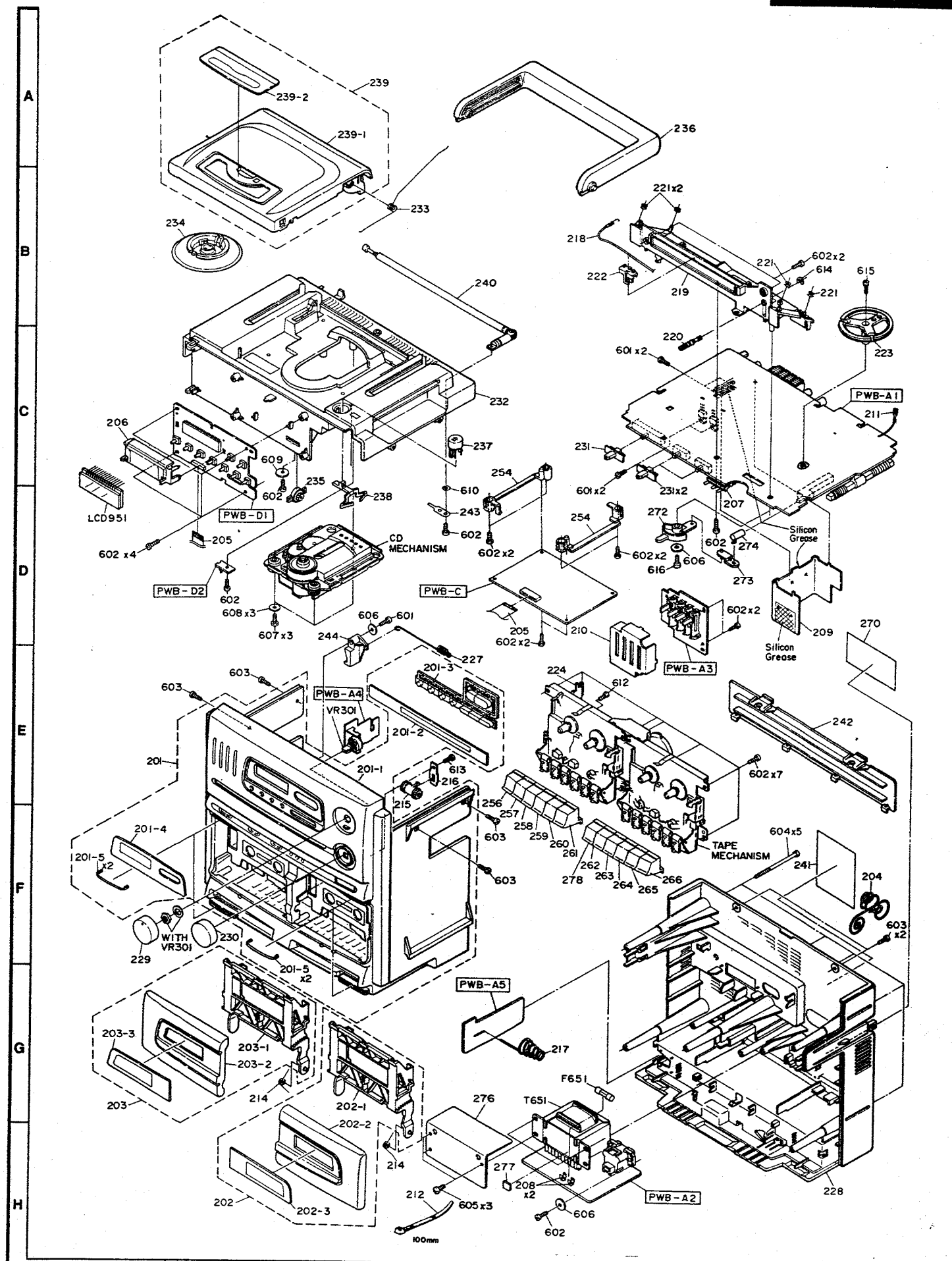


Figure 41 CABINET EXPLODED VIEW

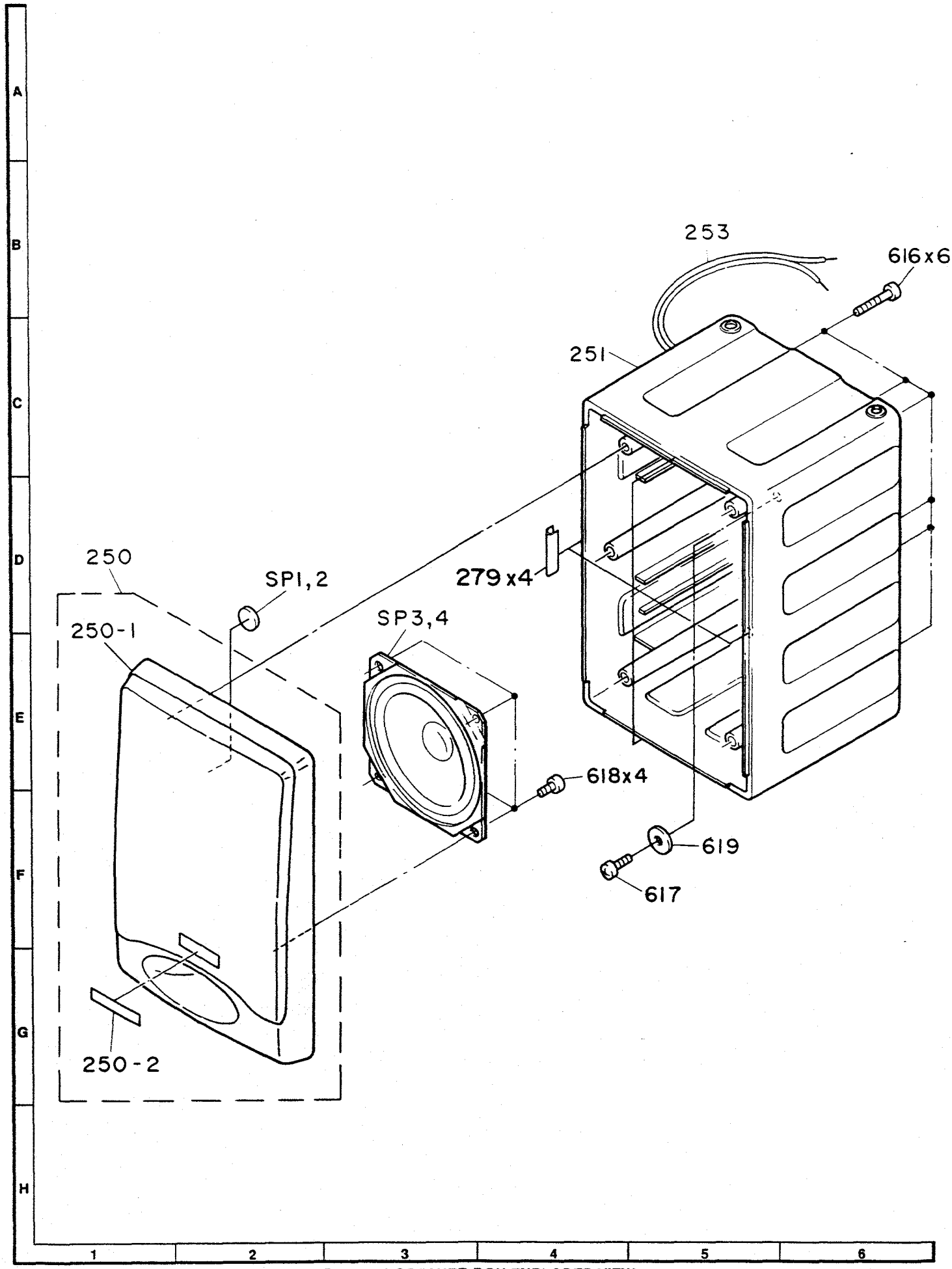


Figure 42 SPEAKER BOX EXPLODED VIEW

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

★MARK: SPARE PARTS-DELIVERY SECTION

NOTE:
Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF.NO.	PART NO.	★	DESCRIPTION	CODE
			INTEGRATED CIRCUITS	
IC1	VHiTA7378P/-1	J	FM Front End,TA7378P	A E
IC2	VHiTA8110AP-1	J	FM/AM IF,TA8110AP	A G
IC3	VHiTA7343P/-1	J	PLL FM MPX.,TA7343AP	A G
IC201	92LiC-AN7345K	J	Rec./PB Amp.,AN7345K	A M
IC601	VHiBA5412//-1	J	Power Amp.,BA5412	A H
IC700	VHiLA6534//-1	J	Tracking/Focus Driver, LA6534	A L
IC720,721	VHiL272D///-1	J	Motor Driver,L272D	A F
IC750	VHiM51594AFP1	J	Servo Control,M51594AFP	A P
IC780	VHiM50423P/-1	J	CD Signal Control,M50423P	A W
IC781	RH-iX1828AFZZ	J	Memory D-RAM,M69030P	A Q
IC810	VHiTDA1311T-T	J	D/A Converter,TDA1311T	A P
IC811	VHiRC4558M/-1	J	Buffer Amp.,RC4558M	A C
IC951	RH-iX1504AFZZ	J	Control Microcomputer, IX1504AF	A U
			TRANSISTORS	
Q201,202	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
Q251	VS2SC2001-K-1	J	Silicon,NPN,2SC2001 K	A D
Q252	VS2SC1815GR-1	J	Silicon,NPN,2SC1815 GR	A B
Q301,302	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
Q303	VSDTC114ES/-1	J	Digital NPN,DTC114 ES	A B
Q401	VSDTA114ES/-1	J	Digital PNP,DTA114 ES	A B
Q402	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
Q403	VSDTC114ES/-1	J	Digital,NPN,DTC114 ES	A B
Q404,405	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
Q406	VS2SD2061F/-1	J	Silicon NPN,2SD2061 F	A G
Q407	VSDTC114ES/-1	J	Digital,NPN,DTC114 ES	A B
Q601,602	VS2SC1740SR-1	J	Silicon,NPN,2SC1740 SR	A B
Q605	VSDTC144ES/-1	J	Digital,NPN,DTC144 ES	A B
Q651,652	VS2SD2061F/-1	J	Silicon,NPN,2SD2061 F	A G
Q653	VSDTA114ES/-1	J	Digital,PNP,DTA114 ES	A B
Q654	VSDTC114ES/-1	J	Digital,NPN,DTC114 ES	A B
Q655	VS2SD468-C/-1	J	Silicon,NPN,2SD468 C	A D
Q701	VSDTC144EK/-1	J	Digital,NPN,DTC144 EK	A B
Q811,812	VSDTC114TK/-1	J	Digital,NPN,DTC114 TK	A B
Q813,814	VSDTC143TK/-1	J	Digital,NPN,DTC143 TK	A B
Q815	VSDTA144EK/-1	J	Digital,PNP,DTA144 EK	A B
Q816	VSDTC144EK/-1	J	Digital,NPN,DTC144 EK	A B
Q818	VSDTA114EK/-1	J	Digital,PNP,DTA114 EK	A B
Q890	VS2SA1235FG-1	J	Silicon,PNP,2SA1235 FG	A B
Q951,952	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	A B
			DIODES	
D1	VHD1SS133//-1	J	Silicon,1SS133	A A
D3	VHD1SS133//-1	J	Silicon,1SS133	A A
D101	VHPSLR34VR3-1	J	LED,Red,SLR34VR3	A B
D201	VHD1SS133//-1	J	Silicon,1SS133	A A
D265~267	VHD1SS133//-1	J	Silicon,1SS133	A A
D301	VHPSLR34VR3-1	J	LED,Red,SLR34VR3	A B
D302	VHPSLR34VR3-1	J	LED,Red,SLR34VR3	A B
D401,402	VHD1SS133//-1	J	Silicon,1SS133	A A
D403~405	VHD1SS133//-1	J	Silicon,1SS133	A A
D407~411	VHD1SS133//-1	J	Silicon,1SS133	A A
D420	VHD11ES1///-1	J	Silicon,11ES1	A B
D601	VHD1SS133//-1	J	Silicon,1SS133	A A
D603~605	VHD1SS133//-1	J	Silicon,1SS133	A A
⚠D651	VHDS4VB20//-1	J	Silicon,S4VB20	A G
D655	VHD11ES1///-1	J	Silicon,11ES1	A B
D791	VHDDA118///-1	J	Silicon,DA118	A B
D901	92LMTZJ5R1AVT	J	Zener,5.1V,MTZJ5.1A	A B
ZD251	VHEMTZJ5R1B-1	J	Zener,5.1V,MTZJ5.1B	A C
ZD401	VHEMTZJ160A-1	J	Zener,16V,MTZJ16A	A A
ZD651	VHEHZ9A1L//-1	J	Zener,9V,HZ9A1L	A B
ZD652	92LHZ9A1T	J	Zener,9V,HZ9A1	A B
ZD653	VHERD5R6JS2-1	J	Zener,5.6V,RD5.6JS2	A B
			FILTERS	
CF2	92LFiLTF1342A	J	FM IF,10.7 MHz	A D
CF3	RFiLA0184AFZZ	J	AM IF,455 kHz	A C
F1	RFiLR0001AWZZ	J	FM Bard Pass Filter	A K
			TRANSFORMERS	
T1	92LiFTF1651A	J	FM IF	A D
T2	92LiFT-F1683A	J	FM Detector	A D
T3	92LiFT-A1683A	J	AM IF	A E
⚠T651	92LPT-1597A	J	Power	A Z
			COILS	
L1	92LCōiLR-1508A	J	FM RF	A A
L2	RCiLB0665AFZZ	J	FM Oscillator	A C
L3	92LCōiLA-1597A	J	MW/LW Bar Antenna	A N
L4	RCiLA0562AFZZ	J	SW Antenna	A C
L5	92LCōiLō-677B	J	MW Oscillator	A D
L6	92LCōiLō-677A	J	LW Oscillator	A C
L7	92LCōiLō-677C	J	SW Oscillator	A C
L8	VP-DH4R7K0000	J	4.7 μH,Choke	A B
L9	VP-DH470K0000	J	47 μH,Choke	A B
L201,202	92LCōiLC-182KK	J	1.8 mH,Choke	A C
L251	VP-MK331K0000	J	330 μH,Choke	A B
L401	VP-YF470K0000	J	47 μH,Choke	A B
			VARIABLE RESISTORS	
VR1	RVR-M0216AFZZ	J	10 kohm (B),Semi-VR [VCO]	A B
VR301	92LVR-1596A	J	20 kohms (B)×2 [VOLUME]	A G
VR302	92LVR-1449D	J	100 kohm (B)×2 [X-BASS]	A F
VR303~305	92LVR-1449C	J	100 kohm (B)×2 [GRAPHIC EQ.]	A F

REF.NO.	PART NO.	★	DESCRIPTION	CODE
VR401	RVR-M0584AFZZ	J	5 kohms (B),Semi-VR [TAPE SPEED]	A B
VR700	RVR-M0590AFZZ	J	47 kohms (B),Semi-VR [Focus Offset]	A B
VR710	RVR-M0590AFZZ	J	47 kohms (B),Semi-VR [Tracking Offset]	A B
VR750	RVR-M0586AFZZ	J	10 kohm (B),Semi-VR [Tracking Gain]	A B
VR751	RVR-M0586AFZZ	J	10 kohm (B),Semi-VR [Focus Gain]	A B

VARIABLE CAPACITORS

TC5	RTō-H1165AFZZ	J	Trimmer	A C
TC6	RTō-H1166AFZZ	J	Trimmer	A C
TC7,8	RTō-H1165AFZZ	J	Trimmer	A C
VC1~4	RVC-R0001AWZZ	J	Variable Capacitor with Trimmers (TC1~4)	A Q

VIBRATORS

X780	RCRM-0109AFZZ	J	Ceramic,8.46 MHz	A D
X951	RCRM-0058AFZZ	J	Ceramic,2 MHz	A D

CAPACITORS

There are two types of capacitors available and they can be identified from each other by reading their Part Numbers.

- Ceramic type capacitor;

A symbol "C" or "K" is given at the 3rd digit of its Part Number like "VCC (or K)·····J."

- Semiconductor type capacitor:

A symbol "T" is given at the 3rd digit of its Part Number like "VCT·····J."

The capacitance error of each capacitor is indicated by the symbol given at the 13th digit of the Part Number as follows:"J" (±5%), "K" (±10%), "M" (±20%), "N" (±30%), "C" (±0.25 pF), "D" (±0.5 pF), "Z" (+80−20%).

(Tubular type ceramic capacitor is identified by the symbol TV(TQ/CY) of the part NO. VC00TV(TQ/CY)0000000; this TV(TQ/CY) does not mean the lead wire.)

(Tubular type ceramic capacitor is identified by the symbol MF(MN) of the part NO. VC00MF(MN)0000000; this MF(MN) does not mean the lead wire.)

Unless otherwise specified, electrolytic capacitors are ±20% type.

C2	VCKYMN1HB102K	J	0.001 μF,50V	A A
C3	VCCSMN1HL4R7C	J	4.7 pF,50V	A A
C4	VCCCPA1HH6R0D	J	6 pF (CH),50V	A A
C5	VCCCMN1HH150J	J	15 pF (CH),50V	A A
C6	VCCUMF1HJ3R9C	J	3.9 pF (UJ),50V	A A
C7	VCCCMN1HH2R2C	J	2.2 pF (CH),50V	A A
C8	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C10,11	VCTYPA1EX472M	J	0.0047 μF,25V	A A
C12	RC-GZA474AF1H	J	0.47 μF,50V,Electrolytic	A A
C14	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C15	VCKYMN1HB102K	J	0.001 μF,50V	A A
C16	VCTYPA1EX333M	J	0.033 μF,25V	A A
C17	RC-GZA226AF1C	J	22 μF,16V,Electrolytic	A B
C18,19	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C20	VCTYPA1EX473M	J	0.047 μF,25V	A A
C21	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C23	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C24	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C25	RC-GZA335AF1H	J	3.3 μF,50V,Electrolytic	A B
C26	VCQSMA1HL102J	J	0.001 μF,50V,Styrol	A B
C27	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C28	RC-GZA227AF1A	J	220 μF,10V,Electrolytic	A B
C29,30	VCTYPA1EX272M	J	0.0027 μF,25V	A A
C31,32	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C33,34	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C40	VCCSPA1HL560J	J	56 pF,50V	A A
C41	VCCCMN1HH220J	J	22 pF (CH),50V	A A
C44	VCCCMN1HH3R9K	J	3.9 pF (CH),50V	A A
C45	VCCUPA1HJ220J	J	22 pF(UJ),50V	A A
C47	VCCCMN1HH120J	J	12 pF (CH),50V	A A
C48	VCTYMN1CX332M	J	0.0033 μF,16V	A A
C49	VCCUMN1HJ5R6D	J	5.6 pF (UJ),50V	A A
C52	VCKYMN1HB271K	J	270 pF,50V	A A
C53	VCCCPA1HH181J	J	180 pF (CH),50V	A A
C54	VCKYMN1HB331K	J	330 pF,50V	A A
C55	VCCSMN1HL300J	J	30 pF,50V	A A
C63	VCKYMN1HB102K	J	0.001 μF,50V	A A
C64	VCTYPU1EX223M	J	0.022 μF,25V	A B
C201,202	VCKYMN1HB561K	J	560 pF,50V	A A
C203,204	VCKYMN1HB151K	J	150 pF,50V	A A
C205,206	VCKYMN1HB561K	J	560 pF,50V	A A
C207~210	VCKYMN1HB331K	J	330 pF,50V	A A
C211~214	VCKYMN1HB151K	J	150 pF,50V	A A
C215,216	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	A B
C217,218	VCTYPA1EX223M	J	0.022 μF,25V	A A
C219,220	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C221,222	VCTYPA1EX332K	J	0.0033 μF,25V	A A
C223,224	VCTYMN1CX332K	J	0.0033 μF,16V	A A
C225,226	VCTYPA1EX183K	J	0.018 μF,25V	A A
C227,228	VCKYMN1HB471K	J	470 pF,50V	A A
C231,232	VCKYMN1HB102K	J	0.001 μF,50V	A A
C233,234	RC-GZA226AF1C	J	22 μF,16V,Electrolytic	A B
C235,236	VCTYPA1EX563K	J	0.056 μF,25V	A B
C237,238	VCTYMN1CX332K	J	0.0033 μF,16V	A A
C239,240	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C241	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C242	VCTYPA1EX823K	J	0.082 μF,25V	A B
C243	RC-GZA336AF1C	J	33 μF,16V,Electrolytic	A B
C244	RC-GZA226AF1C	J	22 μF,16V,Electrolytic	A B
C245	RC-GZA227AF1A	J	220 μF,10V,Electrolytic	A B
C247,248	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C249	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C250	RC-GZA475AF1E	J	4.7 μF,25V,Electrolytic	A B
C251	VCKYPA1HB561K	J	560 pF,50V	A A
C252	VCTYPA1EX182K	J	0.0018 μF,25V	A A
C253	VCQPKA2AA562J	J	0.0056 μF,100V, Polypropylene	A A
C254	VCQYKA1HM563K	J	0.056 μF,50V,Mylar	A B
C255	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	A B
C256	VCTYPA1EX103K	J	0.01 μF,25V	A A
C301,302	VCTYMN1CY103K	J	0.01 μF,16V	A A
C303,304	VCTYMN1CX562K	J	0.0056 μF,16V	A A
C305,306	VCTYMN1CX222K	J	0.0022 μF,16V	A A
C307,308	VCKYMN1HB331K	J	330 pF,50V	A A
C309,310	VCTYMN1CY822K	J	0.0082 μF,16V	A A
C311,312	VCTYMN1CX682K	J	0.0068 μF,16V	A A
C313,314	VCTYMN1CX272K	J	0.0027 μF,16V	A A
C315,316	VCTYPA1EX223M	J	0.022 μF,25V	A A
C317,318	RC-EZY224AF1H	J	0.22 μF,50V,Electrolytic	A B
C319,320	VCKYMN1HB331K	J	330 pF,50V	A A
C321,322	VCTYMN1CX222K	J	0.0022 μF,16V	A A
C323,324	RC-GZA154AF1H	J	0.15 μF,50V,Electrolytic	A A
C325	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C401	RC-GZA107AF1E	J	100 μF,25V,Electrolytic	A B
C402	RC-GZA476AF1C	J	47 μF,16V,Electrolytic	A B
C405	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	A B
C406,407	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C408	VCKYMN1HB102K	J	0.001 μF,50V	A A
C455	VCKYPA1HB102K	J	0.001 μF,50V	A A
C601	RC-GZA337AF1E	J	330 μF,25V,Electrolytic	A C
C602	RC-GZA474AF1H	J	0.47 μF,50V,Electrolytic	A A
C607,608	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	A B
C609,610	VCKYMN1HB102K	J	0.001 μF,50V	A A
C611,612	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C615,616	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C617,618	RC-GZV108AF1A	J	1000 μF,10V,Electrolytic	A D
C619,620	RC-QZA184AFYK	J	0.18 μF,50V,Mylar	A C
C623	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	A B

REF.NO.	PART NO.	★	DESCRIPTION	CODE
C624	RC-GZA226AF1A	J	22 μF,10V,Electrolytic	A B
C651~654	VCKZPA1HF104Z	J	0.1 μF,50V	A A
C655	92LCTU63VR22JF	J	0.22 μF,63V	A E
C659	VCKZPA1HF223Z	J	0.022 μF,50V	A A
C660	RC-GZW478AF1E	J	4700 μF,25V,Electrolytic	A G
C661	VCKZPA1HF223Z	J	0.022 μF,50V	A A
C662	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C663	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C665	VCKZPA1HF223Z	J	0.022 μF,50V	A A
C666	RC-GZA226AF1A	J	22 μF,10V,Electrolytic	A B
C667	RC-GZA337AF1A	J	330 μF,10V,Electrolytic	A B
C668,669	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C670	RC-GZA226AF1A	J	22 μF,10V,Electrolytic	A B
C671	VCKZPA1HF223Z	J	0.022 μF,50V	A A
C701	VCKYMN1HB121K	J	120 pF,50V	A A
C704	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C710	VCKYMN1HB681K	J	680 pF,50V	A A
C712	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C716	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C723,724	VCKYTV1EF224Z	J	0.22 μF,25V	A A
C725,726	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C727,728	VCKYTV1EB223K	J	0.022 μF,25V	A B
C743,744	VCKYTV1EF224Z	J	0.22 μF,25V	A A
C750	VCTYMN1CX222K	J	0.0022 μF,16V	A A
C752	VCKRTV1CR104K	J	0.1 μF,16V	A A
C755	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C756	VCTYMN1CX122K	J	0.0012 μF,16V	A A
C757	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C758	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C759	VCKYMN1HB561K	J	560 pF,50V	A A
C760	VCKRTV1CR154K	J	0.15 μF,16V	A B
C761	VCKYTV1HB562K	J	0.0056 μF,50V	A A
C762	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	A B
C763	VCKRTV1CR184K	J	0.18 μF,16V	A C
C764	VCKYMN1HB121K	J	120 pF,50V	A A
C765	VCKRTV1CX563K	J	0.056 μF,16V	A B
C767	RC-GZA226AF1C	J	22 μF,16V,Electrolytic	A B
C768	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	A B
C769	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C775	VCCSTV1HL221J	J	220 pF,50V	A A
C780	VCTYMN1CX222K	J	0.0022 μF,16V	A A
C783	VCKYTV1EB223K	J	0.022 μF,25V	A B
C784	VCKYMN1HB471K	J	470 pF,50V	A A
C785	VCKRTV1CR124K	J	0.12 μF,16V	A B
C786	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C787	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C788	VCKYTV1CF105Z	J	1 μF,16V	A B
C789	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C793	VCKYTV1HB102K	J	0.001 μF,50V	A A
C801	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C817,818	VCKYTV1EB823K	J	0.082 μF,25V	A B
C829,830	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	A B
C831,832	VCKYMN1HB102K	J	0.001 μF,50V	A A
C834	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C835	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C837	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C840	RC-GZA475AF1E	J	4.7 μF,25V,Electrolytic	A B
C883	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C884	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	A B
C887	VCKYTV1EF104Z	J	0.1 μF,25V	A A
C888	VCTYMN1EF223Z	J	0.022 μF,25V	A A
C890	VCKYTV1EF473Z	J	0.047 μF,25V	A B
C899	VCKYMN1HB271K	J	270 pF,50V	A A
C950	VCKYMN1HB681K	J	680 pF,50V	A A
C951~953	VCTYMN1CY103K	J	0.01 μF,16V	A A
C954,955	VCKYMN1HB101K	J	100 pF,50V	A A
C956	RC-EZD106AF1C	J	10 μF,16V,Electrolytic	A B
C957	VCTYMN0JY223N	J	0.022 μF,6.3V	A A
C958	RC-EZD106AF1C	J	10 μF,16V,Electrolytic	A B

REF.NO.	PART NO.	★	DESCRIPTION	CODE

RESISTORS

(Unless otherwise specified, resistors are ±5%,carbon type.) (Tubular type carbon film resistor ±5% is identified the symbol TV(TQ/CY) of the part NO. VRS−TV(TQ/CY)0000000; this TV(TQ/CY) does not mean lead wire.)
(Tubular type carbon film resistor ±5% is identified the symbol MF(MN) of the part NO. VRD−MF(MN)0000000; this MF(MN) does not mean lead wire.)

	VRD-MN2BD000C	J	0 ohm,Jumper,φ1.4×3.5mm, Ivory	A A
R1	VRD-ST2CD100J	J	10 ohm,1/6W	A A
R2	VRD-MN2BD470J	J	47 ohms,1/8W	A A
R3	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R4	VRD-ST2CD104J	J	100 kohm,1/6W	A A
R5	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R6	VRD-ST2CD471J	J	470 ohms,1/6W	A A
R7	VRD-ST2CD331J	J	330 ohms,1/6W	A A
R8	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A
R10	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R11	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A
R13	VRD-MN2BD224J	J	220 kohms,1/8W	A A
R14	VRD-ST2EE680J	J	68 ohms,1/4W	A A
R15,16	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
R17,18	VRD-ST2CD272J	J	2.7 kohms,1/6W	A A
R20	VRD-MN2BD152J	J	1.5 kohms,1/8W	A A
R21	VRD-MN2BD560J	J	56 ohms,1/8W	A A
R22	VRD-ST2CD680J	J	68 ohms,1/6W	A A
R23	VRD-ST2CD470J	J	47 ohms,1/6W	A A
R32	VRD-MN2BD221J	J	220 ohms,1/8W	A A
R33	VRD-ST2CD330J	J	33 ohms,1/6W	A A
R201	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R202,203	VRD-ST2CD102J	J	1 kohm,1/6W	A A
R204	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R205,206	VRD-MN2BD560J	J	56 ohms,1/8W	A A
R207,208	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A
R209,210	VRD-MN2BD154J	J	150 kohms,1/8W	A A
R211,212	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R213,214	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A
R215,216	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
R217,218	VRD-MN2BD182J	J	1.8 kohms,1/8W	A A
R219,220	VRD-ST2CD223J	J	22 kohms,1/6W	A A
R221,222	VRD-MN2BD562J	J	5.6 kohms,1/8W	A A
R223,224	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A
R225,226	VRD-MN2BD561J	J	560 ohms,1/8W	A A
R227,228	VRD-MN2BD101J	J	100 ohm,1/8W	A A
R229,230	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R231,232	VRD-MN2BD123J	J	12 kohms,1/8W	A A
R233,234	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
R235	VRD-ST2CD104J	J	100 kohm,1/6W	A A
R236	VRD-ST2CD103J	J	10 kohm,1/6W	A A
R237	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R238	VRD-ST2CD684J	J	680 kohms,1/6W	A A
R241	VRD-MN2BD123J	J	12 kohms,1/8W	A A
R242	VRD-ST2EE101J	J	100 ohm,1/4W	A A
R243	VRD-MN2BD563J	J	56 kohms,1/8W	A A
R244	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R245,246	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R251,252	VRD-MN2BD223J	J	22 kohms,1/8W	A A
R253	VRD-ST2EE4R7J	J	4.7 ohms,1/4W	A A
R254~256	VRD-ST2EE151J	J	150 ohms,1/4W	A A
R257	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
R258	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A
R262	VRD-ST2BD332J	J	3.3 kohms,1/8W	A A
R271	VRD-ST2HD270J	J	27 ohms,1/2W	A A
R272	VRD-ST2HD330J	J	33 ohms,1/2W	A A
R273	VRD-ST2CD120J	J	12 ohms,1/6W	A A
R301,302	VRD-MN2BD333J	J	33 kohms,1/8W	A A
R303,304	VRD-MN2BD183J	J	18 kohms,1/8W	A A
R305,306	VRD-MN2BD223J	J	22 kohms,1/8W	A A

REF.NO.	PART NO.	★	DESCRIPTION	CODE
R307,308	VRD-MN2BD393J	J	39 kohms,1/8W	A A
R309~312	VRD-MN2BD153J	J	15 kohms,1/8W	A A
R313~318	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A
R319,320	VRD-MN2BD562J	J	5.6 kohms,1/8W	A A
R321~324	VRD-MN2BD822J	J	8.2 kohms,1/8W	A A
R325,326	VRD-MN2BD122J	J	1.2 kohms,1/8W	A A
R327,328	VRD-MN2BD684J	J	680 kohms,1/8W	A A
R329,330	VRD-MN2BD392J	J	3.9 kohms,1/8W	A A
R331,332	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R333,334	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
R340	VRD-ST2CD122J	J	1.2 kohms,1/6W	A A
R341	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R401	VRD-MN2BD273J	J	27 kohms,1/8W	A A
R402	VRD-ST2CD153J	J	15 kohms,1/6W	A A
R403	VRD-ST2CD272J	J	2.7 kohms,1/6W	A A
R404	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R405	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
R407	VRD-ST2CD473J	J	47 kohms,1/6W	A A
R409	VRD-MN2BD470J	J	47 ohms,1/8W	A A
R410	VRD-ST2EE391J	J	390 ohms,1/4W	A A
⚠R412	VRG-ST2EG2R7J	J	2.7 ohms,1/4W,Fusible	A B
R415	VRD-ST2CD103J	J	10 kohm,1/6W	A A
R416	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R418	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
R419	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R420	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A
R421	VRD-ST2CD222J	J	2.2 kohms,1/6W	A A
R450	VRD-ST2CD561J	J	560 ohms,1/6W	A A
R451,452	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
R453,454	VRD-MN2BD221J	J	220 ohms,1/8W	A A
R455,456	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R457,458	VRD-MN2BD272J	J	2.7 kohms,1/8W	A A
R459	VRD-ST2CD222J	J	2.2 kohms,1/6W	A A
R460	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
R461	VRD-ST2CD221J	J	220 ohms,1/6W	A A
R603	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
R604	VRD-ST2CD472J	J	4.7 kohms,1/6W	A A
R605	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R607,608	VRD-MN2BD333J	J	33 kohms,1/8W	A A
R609,610	VRD-MN2BD271J	J	270 ohms,1/8W	A A
R619,620	VRD-ST2EE121J	J	120 ohms,1/4W	A A
R624	VRD-ST2CD102J	J	1 kohm,1/6W	A A
R625	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R626	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R627,628	VRD-MN2BD683J	J	68 kohms,1/8W	A A
R629	VRD-ST2CD563J	J	56 kohms,1/6W	A A
R633,634	VRD-ST2EE221J	J	220 ohms,1/4W	A A
R635	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
R636	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R651	VRD-ST2EE681J	J	680 ohms,1/4W	A A
R652	VRD-ST2EE101J	J	100 ohm,1/4W	A A
⚠R653	VRG-ST2EG3R3J	J	3.3 ohms,1/4W,Fusible	A B
R654	VRD-ST2EE331J	J	330 ohms,1/4W	A A
R656	VRD-ST2CD470J	J	47 ohms,1/6W	A A
R657	VRD-MN2BD331J	J	330 ohms,1/8W	A A
R700	VRD-MN2BD105J	J	1 Mohm,1/8W	A A
R702	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R704,705	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R706	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R707	VRD-MN2BD2R2J	J	2.2 ohms,1/8W	A A
R709	VRS-TV2AB824J	J	820 kohms,1/10W	A A
R710	VRD-MN2BD274J	J	270 kohms,1/8W	A A
R711	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R712	VRD-MN2BD223J	J	22 kohms,1/8W	A A
R713	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R714	VRD-MN2BD223J	J	22 kohms,1/8W	A A
R715	VRD-MN2BD823J	J	82 kohms,1/8W	A A
R716	VRD-MN2BD2R2J	J	2.2 ohms,1/8W	A A
R718,719	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R720,721	VRD-MN2BD154J	J	150 kohms,1/8W	A A
R728,729	VRS-TV2AB124J	J	120 kohms,1/10W	A A
R730	VRS-TV2AB4R7K	J	4.7 ohms,1/10W,±10%	A A
R742	VRS-TV2AB4R7K	J	4.7 ohms,1/10W,±10%	A A
R744	VRS-TV2AB103J	J	10 kohm,1/10W	A A
R747	VRS-TV2AB103J	J	10 kohm,1/10W	A A
R749	VRS-TV2AB102J	J	1 kohm,1/10W	A A
R750	VRD-MN2BD125J	J	1.2 Mohms,1/8W	A A
R751	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R752	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A
R753	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R754	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R755	VRD-MN2BD105J	J	1 Mohm,1/8W	A A
R756	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R757	VRD-MN2BD223J	J	22 kohms,1/8W	A A
R758	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R759	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R760	VRD-MN2BD183J	J	18 kohms,1/8W	A A
R761	VRD-MN2BD153J	J	15 kohms,1/8W	A A
R762	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
R763	VRS-TV2AB562J	J	5.6 kohms,1/10W	A A
R764	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
R765	VRS-TV2AB153J	J	15 kohms,1/10W	A A
R766	VRD-MN2BD273J	J	27 kohms,1/8W	A A
R767	VRS-TV2AB823J	J	82 kohms,1/10W	A A
R768	VRS-TV2AB473J	J	47 kohms,1/10W	A A
R770	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
R771	VRD-MN2BD183J	J	18 kohms,1/8W	A A
R772	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R773	VRD-MN2BD331J	J	330 ohms,1/8W	A A
R774	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R777	VRD-MN2BD682J	J	6.8 kohms,1/8W	A A
R779	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R781	VRD-MN2BD333J	J	33 kohms,1/8W	A A
R785	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R786	VRS-TV2AB223J	J	22 kohms,1/10W	A A
R788	VRD-MN2BD124J	J	120 kohms,1/8W	A A
R790	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
R793,794	VRD-MN2BD225J	J	2.2 Mohms,1/8W	A A
R795~797	VRS-TV2AB561J	J	560 ohms,1/10W	A A
R801	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R813,814	VRS-TV2AB471J	J	470 ohms,1/10W	A A
R815,816	VRS-TV2AB181J	J	180 ohms,1/10W	A A
R817,818	VRS-TV2AB105J	J	1 Mohm,1/10W	A A
R833,834	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R835,836	VRD-MN2BD102J	J	1 kohm,1/8W	A A
R839	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
R840	VRD-MN2BD101J	J	100 ohm,1/8W	A A
R891	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R901	VRD-MN2BD181J	J	180 ohms,1/8W	A A
R951,952	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R953,954	VRD-MN2BD152J	J	1.5 kohms,1/8W	A A
R955,956	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
R957,958	VRD-MN2BD332J	J	3.3 kohms,1/8W	A A
R959	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
R961	VRD-MN2BD272J	J	2.7 kohms,1/8W	A A
R962~964	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R965	VRD-MN2BD105J	J	1 Mohm,1/8W	A A
R966	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R967	VRD-MN2BD222J	J	2.2 kohms,1/8W	A A
R968	VRD-MN2BD104J	J	100 kohm,1/8W	A A
R969	VRD-MN2BD103J	J	10 kohm,1/8W	A A
R970	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R971	VRD-MN2BD223J	J	22 kohms,1/8W	A A
R972	VRD-MN2BD153J	J	15 kohms,1/8W	A A
R973	VRD-MN2BD472J	J	4.7 kohms,1/8W	A A
R974	VRD-MN2BD153J	J	15 kohms,1/8W	A A
R975,976	VRD-MN2BD473J	J	47 kohms,1/8W	A A
R977	VRD-MN2BD123J	J	12 kohms,1/8W	A A
R978,979	VRD-MN2BD473J	J	47 kohms,1/8W	A A
RC1	VRD-MN2BD270J	J	27 ohms,1/8W	A A

OTHER CIRCUITRY PARTS

REF.NO.	PART NO.	★	DESCRIPTION	CODE
BI301A/B/CNS301	92LCŌNW6T1596A	J	Connector Ass'y,3-4-6Pin	A M
BI651A/B	92LCŌNW3T1596A	J	Connector Ass'y,3-3Pin	A D
BI652/CNS652	92LCŌNW2T1596A	J	Connector Ass'y,2-2Pin	A D
BI720/CNS720	92LM-CŌNE1595C	J	Connector Ass'y,6-6Pin	A D
BI881A/B/CNS881	92LCŌNW7T1596A	J	Connector Ass'y,3-4-7Pin	A K
CNP201	QCNCM742CAFZZ	J	Plug,3Pin	A A
CNP202	QCNCM742EAFZZ	J	Plug,5Pin	A B
CNP301	QCNCM742FAFZZ	J	Plug,6Pin	A B
CNP401	QCNCM742HAFZZ	J	Plug,8Pin	A B
CNP652	92LCŌNE-2P5045	J	Plug,2Pin	A A
CNP720	QCNCM687FAFZZ	J	Plug,6Pin	A B
CNP881	92LCŌNE7P53015	J	Plug,7Pin	A C
CNP951	92LCŌNEJP9603S	J	Socket,18Pin,Wire Trap	A E
CNS201	92LM-CŌNE1600B	J	Connector Ass'y,3Pin	A G
CNS202	92LM-CŌNE1596C	J	Connector Ass'y,5Pin	A K
CNS302	QCNCM585FAFZZ	J	Socket,6Pin,Wire Trap	A D
CNS401	92LM-CŌNE1600A	J	Connector Ass'y,10Pin	A K
CNS700	QCNCW620RAFZZ	J	Socket,16Pin,Wire Trap	A E
CNS951	92LCŌN18P9602S	J	Socket,18Pin,Wire Trap	A E
CNS971	92LCŌNE4P52151	J	Socket,4Pin,Wire Trap	A D
⚠F651	92LFUSE-T202-E	J	Fuse,T2A L 250V	A D
⚠F652	0FS-F501AAFNX	J	Fuse,T500mA L 250V	A G
J451	QJAKZ0213AFZZ	J	Jack,CD Output	A C
J601	92LJACK-1217A	J	Jack,Phones	A E
J602	QTANZ0468AFZZ	J	Terminal,Ext.Speaker	A E
LCD951	92LLCD-1596A	J	LCD,Display	A S
M401	94R185114337	J	Motor with Pulley [Tape]	A W
M701	92LMTR1651BASY	J	Motor with Gear [Slide]	A P
M702	92LMTR1651CASY	J	Motor with Chassis [Spin]	A P
⚠SO651	QSŌCA0293AFZZ	J	AC Power Supply Socket	A G
SP1,2	RALMB0101AFZZ	J	Tweeter	A B
SP3,4	92LSP-1596A	J	Woofer	A W
SW1	QSW-B0308AFZZ	J	Switch,Slide Type [BAND]	A H
SW201	92LSWiCH-1596B	J	Switch,Slide Type [REC./P.B.]	A G
SW202	QSW-S0719AFZZ	J	Switch,Slide Type [DUBBING SPEED]	A D
SW203	QSW-S0719AFZZ	J	Switch,Slide Type [FM Mode/Type Selector]	A D
SW251	92LSWiCH-1569A	J	Switch,Slide Type [BEAT CANCEL]	A D
SW401	94R640101172	J	Switch,Leaf Type [Tape 1 Main]	A E
SW402	94R640101134	J	Switch,Leaf Type [Tape 2 Main]	A E
SW403	94R64030204	J	Switch,Slide Type [Tape 1 Direction]	A G
SW404	94R640101104	J	Switch,Leaf Type [Tape 2 Stop]	A E
SW405	94R64010138	J	Switch,Leaf Type [Tape 1 Play]	A E
SW651	92LSWiCH-1596A	J	Switch,Slide Type [FUNCTION]	A K
SW702	QSW-P0920AFZZ	J	Switch,Push Type [Pickup In]	A C
SW951	92LSWiCH-1504A	J	Switch,Key Type [PLAY]	A G
SW952	92LSWiCH-1504A	J	Switch,Key Type [STOP]	A G
SW953	92LSWiCH-1504A	J	Switch,Key Type [FWD]	A G
SW954	92LSWiCH-1504A	J	Switch,Key Type [REV]	A G
SW955	92LSWiCH-1504A	J	Switch,Key Type [PAUSE]	A G
SW956	92LSWiCH-1504A	J	Switch,Key Type [MEMORY]	A G
SW957	92LSWiCH-1504A	J	Switch,Key Type [CLEAR]	A G
SW958	92LSWiCH-1504A	J	Switch,Key Type [CALL]	A G
SW959	92LSWiCH-1504A	J	Switch,Key Type [RANDOM]	A G
SW961	QSW-F0317AFZZ	J	Switch,Leaf Type [OPEN/CLOSE]	A C
TP751	92LCŌN7PTXLPB1	J	Plug,7Pin	A C

DECK MECHANISM PARTS

REF.NO.	PART NO.	★	DESCRIPTION	CODE
1	94R192114318	J	Base Ass'y	A G
2	94R19211409	J	Plate,Switch Actuator	A D
3	94R19211408	J	Actuator,Push Button	A D
4	94R19211422	J	Lever,Record Button	A C
5	94R19211423	J	Lever,Play Button	A C
6	94R19211424	J	Lever,REW Button	A C
7	94R19211425	J	Lever,FF Button	A C
8	94R19211466	J	Lever,Stop Button	A C
9	94R19211461	J	Lever,Pause Button	A C
10	94R19211413A	J	Spring,Pause Control	A B
11	94R19211455	J	Lever,Pause	A A
12	94R19211412	J	Spring,Pause Lever	A B
13	94R19211411	J	Stopper,Pause	A C
14	94R19211414	J	Spring,Button Lever	A B
15	94R192101501	J	Main Chassis Ass'y	A U
16	94R19211416	J	Spring,E Actuator	A B
17	94R19211417	J	Spring,P.S.Lever	A B
19	94R19211464	J	Lever,E Kick	A C
20	94R19211420	J	Stopper,PR	A C
21	94R19211421	J	Spring,Record Button Lever	A B
22	94R19211415	J	Spring,Button Lever	A B
25	94R19210314	J	Panel,Head	A D
27	94R19210306	J	Base,Head,Tape 2	A D
28	94R18210308	J	Spring,Erase Head	A B
29	94R19210303	J	Spring,Head Panel	A B
30	94R19211418A	J	Spring,M Control	A B
31	94R19211434	J	Arm,Pause	A C
32	94R19211437	J	Collar,Pause Arm	A A
34	94R18210307	J	Spring,Head Azimuth	A B
35	94R192104312	J	Arm Ass'y,Pinch Roller	A H
37	94R19212604A	J	Lever,Sensing	A C
38	94R192107302	J	REW/FF Clutch Ass'y	A K
39	94R19210703	J	Belt,FF/REW	A E
44	94R192109303	J	Flywheel Ass'y	A L
45	94R19212605	J	Spring,Gear Plate	A B
46	94R192126503	J	Gear Plate Ass'y	A F
47	94R19212602	J	Gear,Cam	A C
49	94R18211070	J	Gear,FF	A C
50	94R18211099	J	Spring,Back Tension	A B
51	94R192105304	J	Reel Ass'y,Supply	A G
52	94R192105303	J	Reel Ass'y,Take Up	A G
53	94R19210506	J	Sensor	A C
55	94R18511407	J	Bracket,Motor	A G
56	94R18211266	J	Rubber,Motor	A A
57	94R18511418	J	Screw,Motor	A A
59	94R182112173	J	Belt,Main	A H
62	94R19211302	J	Slide Lever,Eject	A C
63	94R18211069	J	Lever,Record Safety	A C
64	94R18291001	J	Spring,Pack	A C
66	94R620101104	J	Head,Record/Playback	A Q
67	94R62011408	J	Head,Erase	A L
69	94R18213107	J	Lever,Button	A C
70	94R18293103	J	Shaft,Button Lever	A D
71	94R19213101	J	Frame,Button	A E
73	94R96790000	J	Screw,ϕ2×5mm	A A
74	94R99991809	J	Screw,ϕ2×4.5mm	A A
76	94R91790000	J	Screw,ϕ2×3mm	A A
77	94R91150000	J	Screw,ϕ2×3mm	A A
78	94R99220000	J	Screw,ϕ2×7mm	A A
79	94R99991402	J	Screw,ϕ2×8mm	A A
80	94R91780000	J	Screw,ϕ2×3mm	A A

REF.NO.	PART NO.	★	DESCRIPTION	CODE
81	94R98210000	J	Screw,ϕ2×8mm	A A
83	94R94220000	J	Washer,ϕ1.2×ϕ3.8×0.3mm	A A
84	94R99990313	J	Washer,ϕ1.45×ϕ3.8×0.5mm	A A
85	94R97860000	J	Washer,ϕ2×ϕ3.5×0.3mm	A A
86	94R99990003	J	Washer,ϕ2.1×ϕ4×0.13mm	A A
87	94R99992041	J	Screw,ϕ2×3mm	A A
101	94R185101301	J	Main Chassis Ass'y	A U
102	94R18210115	J	Lever,Pause	A C
103	94R18210116	J	Spring,Pause Lever	A B
104	94R18291001	J	Spring,Pack	A C
108	94R18510455	J	Screw,Panel Head	A C
109	94R18510408	J	Plate,Release	A D
110	94R18510409	J	Spring,R.C.Plate	A A
111	94R18510410	J	Spring,R.C.	A A
112	94R18510401	J	Panel,Head	A E
113	94R18510402	J	Plate,R.C.	A E
114	94R18510403	J	Tape Guide	A D
116	94R18511601	J	Bracket,Switch	A D
119	94R18510405	J	Plate,Head Spring	A D
123	94R18510406	J	Spring,Pinch Roller,FF	A A
124	94R18510407	J	Spring,Pinch Roller,REW	A A
127	94R62010721	J	Head,Playback	A W
130	94R185112501	J	Flywheel Ass'y	A L
132	94R18211223	J	Screw,P Kick Lever	A A
133	94R182112142	J	Main Belt	A H
134	94R18511703	J	Lever,Eject Slide	A C
135	94R18511702	J	Spring,Eject Slide Lever	A A
137	94R185102304	J	Lever,Program Button	A E
138	94R185102309	J	Lever,Mode Button	A E
139	94R18510232	J	Lever,Play Button	A C
140	94R18510235	J	Lever,FF Button (REW)	A C
141	94R18510234	J	Lever,FF Button (FF)	A C
142	94R18510231	J	Lever,Stop Button	A C
143	94R18510222	J	Spring,Program/Mode Button/FF Switch Plate Lever	A A
144	94R18510224	J	Spring,FF Button Lever	A A
145	94R18510227	J	Spring,Mode Button Lever	A A
149	94R185102301	J	Lock Actuator Ass'y	A H
150	94R18510217	J	Plate Slide	A D
151	94R18510220	J	Spring,Lock Release	A A
152	94R18510226	J	Spring,Switch Actuator	A B
153	94R185102501	J	Button Base Ass'y	A H
154	94R18510221	J	Spring,Stop Button Lever	A A
156	94R18510242	J	Spring,Button Lever	A A
157	94R185102302	J	Switch Actuator Ass'y	A G
158	94R18510225	J	Spring,Lock Actuator	A A
163	94R185111301	J	Plate,Reel Ass'y	A G
164	94R185111501	J	Reel Ass'y	A N
165	94R185118305	J	Sub Chassis Ass'y	A N
166	94R18511804	J	RC Arm	A B
167	94R18511805	J	Arm,Auto Control,FF	A C
168	94R18511806	J	Arm,Auto Control,REW	A C
169	94R18511812	J	Screw,Auto Control Arm	A C
172	94R18512001	J	Lever,Auto,FF	A D
173	94R18512003	J	Spring,Auto Lever,FF	A A
174	94R18512005	J	Stopper,Spring	A B
175	94R18512002	J	Lever,Auto,REW	A C
176	94R18512004	J	Spring,Auto Lever,REW	A A
178	94R18510301	J	Arm,Turn Over	A C
179	94R18510302	J	Spring,Turn Over Arm	A A
180	94R18511602	J	Plate,FF Switch	A C
182	94R185105302	J	T Gear Arm Ass'y,FF	A P
183	94R18510504	J	Spring,T Gear Arm,FF	A A
184	94R18510503	J	Gear,T Cam,FF	A D
185	94R185106302	J	T Gear Arm Ass'y,REW	A F
186	94R18510603	J	Spring,T Gear Arm,REW	A A
187	94R18510602	J	Gear,T Cam,REW	A D
188	94R185107301	J	FF Gear Arm Ass'y,FF	A F
189	94R18510703	J	FF Gear	A C
190	94R18510704	J	Spring,FF Gear Arm	A A
191	94R18510705	J	Collar,FF Gear Arm	A B
192	94R185108301	J	FF Gear Arm Ass'y,REW	A F
194	94R185109501	J	Pinch Roller Ass'y,FF	A H
195	94R185110501	J	Pinch Roller Ass'y,REW	A H
401	94R19211225	J	Lever,Pause Kick	A C
402	94R18511406	J	Lever,Pause Kick	A C
403	94R91820000	J	Screw,ϕ2×6mm	A A
404	94R18211265	J	Collar	A A
405	94R18511404	J	Spring,Pause Kick Lever	A C
410	94R182112109	J	Felt,Vibration	A A
411	94R18001084	J	Felt,Vibration	A A
415	94R91780000	J	Screw,ϕ2×3mm	A A
416	94R99992024	J	Screw,ϕ2×8mm	A A
417	94R96740000	J	Tapping Screw,ϕ2×6mm	A A
418	94R9C1917303	J	Screw,ϕ1.7×3mm	A A
419	94R98760000	J	Washer,ϕ2.1×ϕ5×0.5mm	A A
421	94R9C1917403	J	Screw,ϕ1.7×4mm	A A
423	94R97860000	J	Washer,ϕ2×ϕ3.5×0.3mm	A A
424	94R98890000	J	Washer,ϕ2.1×ϕ3×0.3mm	A A
425	94R99990309	J	Washer,ϕ1.45×ϕ4×0.5mm	A A
426	94R94210000	J	Washer,ϕ1.2×ϕ3×0.25mm	A A
427	94R98880000	J	Washer,ϕ1.2×ϕ3×0.4mm	A A
428	94R99990009	J	Washer,ϕ3.1×ϕ8.5×0.13mm	A A
429	94R9C2017851	J	Screw,ϕ1.7×8.5mm	A A
430	94R99991302	J	Screw,ϕ2×9mm	A A
431	94R91810000	J	Screw,ϕ2×5mm	A A
432	94R99990013	J	Washer,ϕ1.75×ϕ4×0.3mm	A A
434	94R91800000	J	Screw,ϕ2×4mm	A A
435	94R95020000	J	Ring,"E"Type,ϕ2mm	A A
436	94R90790000	J	Screw,ϕ2×6mm	A A
437	94R99992007	J	Screw,ϕ2×4.5mm	A A
438	94R96920000	J	Screw,ϕ1.7×2.5mm	A A
439	92LM-ANG1535A	J	Bracket,Button	A B
M401	94R185114337	J	Motor with Pulley	A W
SW401	94R640101172	J	Switch,Leaf Type [Tape 1 Main]	A E
SW402	94R640101134	J	Switch,Leaf Type [Tape 2 Main]	A E
SW403	94R64030204	J	Switch,Slide Type [Tape 1 Direction]	A G
SW404	94R640101104	J	Switch,Leaf Type [Tape 2 Stop]	A E
SW405	94R64010138	J	Switch,Leaf Type [Tape 1 Play]	A E

CD MECHANISM PARTS

301	MSPRC0798AFZZ	J	Spring,Rack	A A
302	NGERH0381AFZZ	J	Gear,Middle	A C
303	NGERH0382AFZZ	J	Gear,Drive	A B
304	NGERR0036AFZZ	J	Gear,Rack,Fix	A B
305	NGERR0037AFZZ	J	Gear,Rack,Move	A B
306	NSFTM0237AFFW	J	Shaft,Guide	A C
307	PCOVP3207AFSA	J	Cover,CD Mechanism	A D
308	PCUSG0427AFSC	J	Cushion	A C
⚠310	RCTRH8134AFZZ	J	Pickup Unit	B H
311	QPWBH0180AFZZ	J	Flexible PWB	A G
701	LX-HZ0217AFFD	J	Screw,ϕ2.6×8mm	A A
702	XBPSD20P03000	J	Screw,ϕ2×3mm	A A
703	XBPSD26P06J00	J	Screw,ϕ2.6×6mm	A A
M701	92LMTR1651BASY	J	Motor with Gear [Slide]	A P
M702	92LMTR1651CASY	J	Motor with Chassis [Spin]	A P

CABINET PARTS

201	92LCAB1904A-S1	J	Front Cabinet Ass'y	A X
201-1	————		Front Cabinet (Not Replacement Item)	—

REF.NO.	PART NO.	★	DESCRIPTION	CODE
201- 2	92LPANEL1683B1	J	Panel,Dial Window	A D
201- 3	92LKNōB1683A	J	Button,CD Function	A E
201- 4	92LPANEL1683A	J	Panel,CD Display	A E
201- 5	92LPANEL1596F	J	Decoration Panel,Insnlator	A B
202	92LMEC1685CTS1	J	Cassette Holder Ass'y [Tape 1]	A L
202- 1	————		Cassette Holder [Tape 1] (Not Replacement Item)	—
202- 2	92LCT-CōV1685A	J	Cover,Cassette Holder [Tape 1]	A E
202- 3	92LPANEL1685A1	J	Panel,Cassette Holder Cover [Tape 1]	A D
203	92LMEC1685CTS2	J	Cassette Holder Ass'y [Tape 2]	A L
203- 1	————		Cassette Holder Ass'y [Tape 2] (Not Replacement Item)	—
203- 2	92LCT-CōV1685B	J	Cassette Holder [Tape 2]	A E
203- 3	92LPANEL1683D1	J	Panel,Cassette Holder Cover [Tape 2]	A D
204	92LBSPR1401A	J	Spring,Battery,+/-	A C
205	92LCōN18S1596A	J	Connector Flat Cable,18Pin	A G
206	92LHōLD1596A	J	Holder,LCD	A C
207	92LHōLD-1596B	J	Holder,LED	A B
⚠208	QFSHD2104AFZZ	J	Fuse Holder	A A
209	92LRDAT-1596A	J	Heat Sink	A H
210	92LSHLD-1683A	J	Shield,Graphic EQ.	A D
211	92LTiP-1596A	J	Tip with Wire	A B
212	92LN-BAND1318A	J	Nylon Band,100mm	A A
214	92LCSPR1596A	J	Spring,Cassette Holder Up	A A
215	MLiFP0030AFZZ	J	Damper	A E
216	92LSUPT1535F	J	Bracket,Damper	A A
217	92LBSPR1595C	J	Spring,Battery,-	A B
218	92LDSTR1596AS1	J	Dial Cord Ass'y	A C
219	92LSCHS1596AS1	J	Tuner Frame	A K
220	92LSHAFT1596A	J	Shaft,Tuning	A C
221	92LRōLL009	J	Pulley	A B
222	92LPiNT1683A	J	Dial Pointer	A C
223	92LWHEL1342A	J	Drum	A B
224	92LM-LEV1596A	J	Lever,Record Interlocking	A D
227	92LCSPR1596B	J	Spring,Record	A C
228	92LCAB1684B-GY	J	Rear Cabinet	A T
229	92LKNōB1596A	J	Konb,Volume	A C
230	92LKNōB1596B	J	Konb,Tuning	A C
231	92LKNōB1596C	J	Konb,Function/Dubbing/FM Mode Speed	A A
232	92LCAB1683C-GY	J	Top Cabinet	A Q
233	92LCSPR1596C	J	Spring,CD Lid Up	A D
234	92LMAG1651AS1	J	Magnet Ass'y	A H
235	MLiFP0061AFZZ	J	CD Damper	A F
236	92LHNDL1683AS1	J	Handle Ass'y	A K
237	92LKNōB1596D	J	Button,CD Eject	A B
238	92LLEV1524B	J	Lever,CD Eject	A B
239	92LCLiD1683AS1	J	CD Lid Ass'y	A L
239-1	————		CD Lid (Not Replacement Item)	—
239-2	92LPANEL1683E	J	Panel,CD Lid	A D
240	92LR-ANT258A	J	Rod Antenna	A L
241	92LSPEC1904A	J	Label,Specifications	A E
242	92LLiD1683A-GY	J	Battery Lid	A K
243	92LATML1491A	J	Terminal,Rod Antenna	A B
244	92LLEV1596A	J	Lever,Record	A C
250	92LSCAB1683AS1	J	Speaker Front Cabinet Ass'y	A X
250-1	————		Speaker Front Cabinet (Not Replacement Item)	—
250-2	92LLABL1596B	J	Label,X-BASS	A B
251	92LSCAB1683BGY	J	Speaker Rear Cabinet	A V
253	92LSPCōRD1418A	J	Speaker Cord	A E
254	92LHōLD1683A	J	Adaptor,CD PWB	A B

REF.NO.	PART NO.	★	DESCRIPTION	CODE
256	92LM-BTN1683A1	J	Button,Record [Tape 2]	A C
257	92LM-BTN1683B1	J	Button,Play [Tape 2]	A C
258	92LM-BTN1683C1	J	Button,Rewind [Tape 2]	A C
259	92LM-BTN1683D1	J	Button,Fast Forward [Tape 2]	A C
260	92LM-BTN1683E1	J	Button,Stop/Eject [Tape 2]	A C
261	92LM-BTN1683F1	J	Button,Pause [Tape 2]	A C
262	92LM-BTN1685B	J	Button,Play [Tape 1]	A C
263	92LM-BTN1683H1	J	Button,Rewind [Tape 1]	A C
264	92LM-BTN1683i1	J	Button,Fast Forward [Tape 1]	A C
265	92LM-BTN1683J1	J	Button,Stop/Eject [Tape 1]	A C
266	92LM-BTN1683K1	J	Button,Pause [Tape 1]	A C
270	92LLABL1420A1	J	Label CLASS-1	A C
272	92LKNōB1597A	J	Knob,Band	A B
273	92LLEV1597A	J	Lever,Band Knob	A B
274	92LHōLD1597A	J	Adaptor,Band Knob Lever	A B
276	92LSHLD1597A	J	Shield,Power Transformer	A A
277	92LCUSN1609A	J	Cushion,Power Transformer Shield	A A
278	92LM-BTN1685A	J	Botton,Reverse Mode [TAPE 1]	A C
279	92LFELT468A	J	Felt,Speaker Box	A A
601	92L3TBS+8BZ	J	Screw,ϕ3×8mm	A A
602	92L3PTS+10BZ	J	Screw,ϕ3×10mm	A A
603	92L3PTS+12BB	J	Screw,ϕ3×12mm	A A
604	92L3PTS+65BZM	J	Screw,ϕ3×65mm	A B
605	92L4PTS+12BZ	J	Screw,ϕ4×12mm	A A
606	92L3R2W15-R8S	J	Washer,ϕ3.2×ϕ15×0.8mm	A A
607	92L2R6PTS+10BZ	J	Screw,ϕ2.6×10mm	A A
608	92L2R8W12-R8S	J	Washer,ϕ2.8×ϕ12×0.8mm	A A
609	92L3R2W13-R1S	J	Washer,ϕ3.2×ϕ13×0.1mm	A A
610	92L3SPW	J	Washer,ϕ3mm	A A
612	92L2TTS+3PZ	J	Screw,ϕ2×3mm	A A
613	92L3PTS+8BZ	J	Screw,ϕ3×8mm	A A
614	92LE3	J	Washer,"E" Ring,ϕ3mm	A A
615	92LS2R6S261A	J	Screw,ϕ2.6×8mm	A A
616	92L3PTS+20BZ	J	Screw,ϕ3×20mm	A A
617	92L3PTS+12BZ	J	Screw,ϕ3×12mm	A A
618	92L4PTS+10BZ	J	Screw,ϕ4×10mm	A A
619	92L3R2W14-1S	J	Washer,ϕ3.2×ϕ14×1mm	A A

ACCESSORIES/PACKING PARTS

	92LBAG002B	J	Polyethylene Bag, Operation Manual	A A
	92LBAG1401D	J	Polyethylene Bag,Unit	A A
	92LBAG1609A	J	Polyethylene Bag,Speaker	A A
⚠	92LCōRD-019E	J	AC Power Supply Cord	A K
	92LiNST1904A	J	Operation Manual	A H
	92LLABL1494C	J	Label,AC Power Supply Cord	A B
	92LLABL1904B-L	J	Label,Speaker Marking,Left	A A
	92LLABL1904C-R	J	Label,Speaker Marking, Right	A A
	92LP-AD1683A	J	Packing Add.,Unit	A L
	92LP-AD1683BB	J	Packing Add.,Speaker, Bottom	A G
	92LP-AD1683BT	J	Packing Add.,Speaker,Top	A G
	92LP-CASE1904A	J	Packing Case	A T